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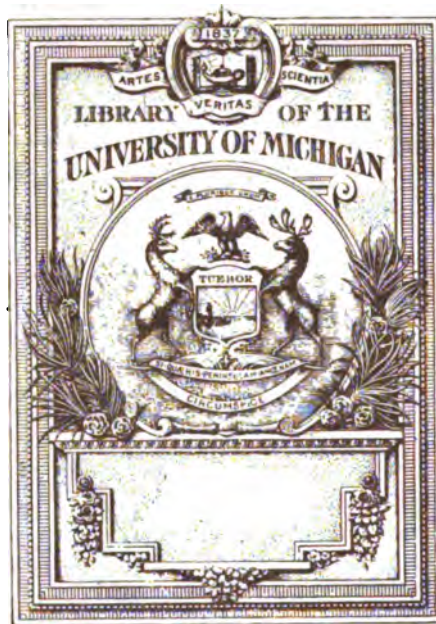
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TWENTIETH ANNUAL REPORT

OF THE

DAIRY AND FOOD COMMISSIONER

OF THE

STATE OF MICHIGAN

FOR THE

YEAR ENDING JUNE 30, 1913.



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BY AUTHORITY

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## MICHIGAN DAIRY AND FOOD DEPARTMENT.

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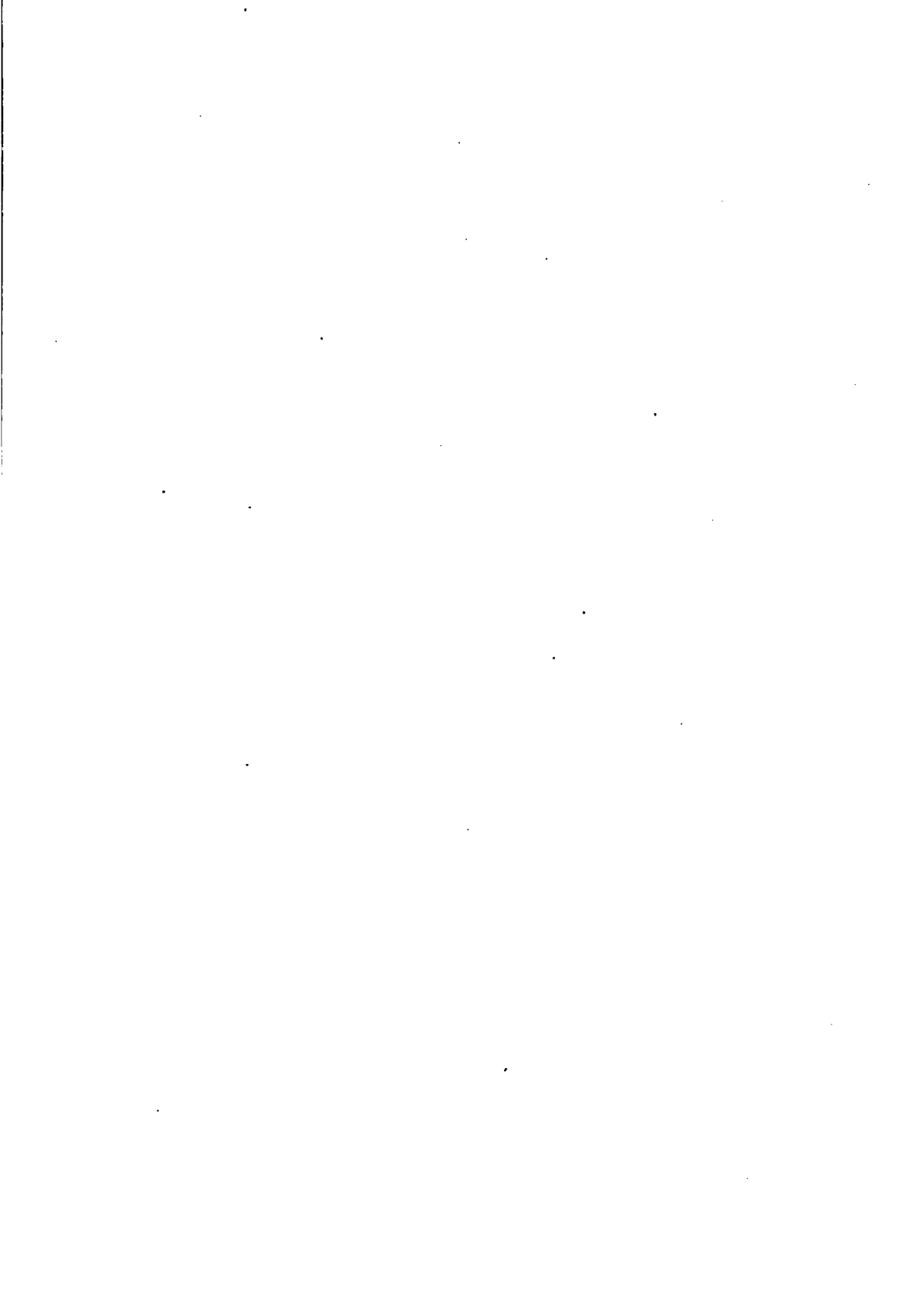
JAMES W. HELME.....	Commissioner
FERN L. SHANNON.....	State Analyst
M. J. SMITH.....	Chief Clerk
L. H. VAN WORMER.....	Assistant Chemist
MISS IDA M. HARRIS.....	Bookkeeper
MISS GERTRUDE VALLIERE.....	Stenographer
MISS PAULINE PHILLIPS.....	Stenographer
MISS NAN CHILDS.....	Chemist
MISS GLADYS DAME.....	Clerk
C. V. JONES.....	Regular Inspector
GEO. N. WHIPPLE.....	Regular Inspector
JOHN T. ROWE.....	Regular Inspector
WM. T. HULSCHER.....	Regular Inspector
BURR B. LINCOLN.....	Regular Inspector
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D. A. NICHOLS.....	Regular Inspector
WM. J. MICKEL.....	Regular Inspector
R. E. WOODRUFF.....	Special Inspector
D. J. FARRELL.....	Special Inspector
HENRY F. COLLINS.....	Special Inspector
C. R. WEBB.....	Special Inspector
A. H. RAIKE.....	Special Inspector
H. D. WENDT.....	Special Inspector
E. H. SHULER.....	Clerk and Messenger

### DRUG INSPECTION.

A. R. TODD.....	Drug Analyst
M. A. JONES.....	Drug Inspector
CHAS. A. BUGBEE.....	Drug Inspector

### APIARY INSPECTION.

FRANK ERIC MILLEN.....	Apiary Inspector
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## LETTER OF TRANSMITTAL.

DAIRY AND FOOD DEPARTMENT,  
Lansing, Michigan.

Hon. Woodbridge N. Ferris, Governor:

Sir:—In accordance with the provisions of the act creating the Dairy & Food Department I herewith transmit to you the report of the operations of this department in detail for the year ending July 1st, 1913.

In transmitting this report it will be remembered that it includes six months under the administration of the present Commissioner and six months of the administration of my predecessor, Mr. Dame. In this connection I would suggest and recommend that the legislature in the future should change the time for the expiration of the term of Dairy & Food Commissioner so that the term of the Commissioner and the fiscal year will end at the same time. As the matter now stands while a Commissioner holds office for two years, his operations extend over three fiscal years and only one of those fiscal years is contained entirely within his term. It has sometimes happened in the past that the outgoing Commissioner has in the first six months of the fiscal year spent a very large proportion of the funds of the department leaving the new Commissioner with scant funds to carry on his operations for the first six months of his term. Thanks to my predecessor this did not happen during my term but it has happened several times in the past history of the department. It will be much more satisfactory to have the term of office of the Commissioner concurrent with the fiscal year and in that way each Commissioner would report upon his operations only and could use the funds to carry on his policies of administration without embarrassing his successor.

### FINANCES.

The annual appropriation for the support of this department is \$35,000 per year and in addition it derives certain revenues from the licensing of creameries, milk dealers, ice cream manufacturers and stock food manufacturers. During the past fiscal year about \$10,000 was collected from these various sources giving the department an available fund for the fiscal year of \$45,122.45.

During the year there has been expended in the operations of the Dairy & Food Department a sum of \$38,559.10, leaving a balance which was covered into the State Treasury at the end of the fiscal year of \$6,563.35.

The Drug Department is given a yearly appropriation of \$6,000. Of this there was expended during the fiscal year \$5,476.18 leaving a balance to be covered into the State Treasury of \$523.82.

During the fiscal year the legislature passed a law imposing upon this

department the duty of regulating the weights and measures of the state. While this law did not take effect until after the close of the fiscal year, it became necessary for the department to purchase equipment in order to prepare for the enforcement of the same. There was spent in purchasing such equipment the sum of \$2,306.36 which is included in the disbursements above mentioned, but in spite of this extraordinary, unlooked for expenditure there was covered into the State Treasury, unused funds by this department at the close of the fiscal year totalling the sum of \$7,087.17 and this in spite of the fact that the operations of the department were greater than the previous year in the number of inspections and number of prosecutions.

#### INSPECTIONS DURING THE YEAR.

There were employed during the year on the average, eight regular food inspectors whose duty it was to inspect grocery stores, restaurants, hotels and other places where food is stored or sold; four dairy inspectors whose business it is to inspect the milk supply of cities and also the creameries and cheese factories of the state; two drug inspectors whose duty it is to inspect the drug products of the state. These inspectors made a total number of 21,212 inspections. Of these, 12,889 were inspections of grocery stores and other food supply institutions; 1715 were inspections of hotels and bakeries, 4072 were inspections of farm dairies contributing to city milk supplies and 2536 were inspections of drug stores.

During the latter part of the year I appointed two inspectors whose duty it was to inspect creameries and cheese factories only and there was inspected during the year 425 creameries and cream stations; sixty cheese factories, 398 dairies which supplied the creameries and cheese factories, and 478 dairies which contributed to the furnishing of city milk supplies. In this connection I would state that we have available funds for the appointment of about four to six dairy inspectors. It is hardly necessary for me to state that the inspection of all the dairies in the state by this small force is absolutely impossible. As a result they confine their operations largely to inspecting city and village milk supplies which have no local inspector of their own. As most of the large cities of the state now have local milk inspection, the department does not intend to inspect such supplies unless complaints are made to us when we promptly investigate them and endeavor to correct the conditions complained of.

The number of food samples sent in by inspectors during the year was 1515 which on analysis showed 1009 to be legal and 506 either adulterated or misbranded. Of the 507 drug samples sent in by Drug Inspectors 254 were found to be legal products and 253 were found to be either adulterated or of not sufficient strength or not properly labeled. In the Stock Food Department we analyzed about 220 concentrated feeds during the year.

#### PROSECUTIONS.

The prosecutions during the year have been greater than in any previous year of this department. This department was established twenty years ago at a time when but little was known about food preparations and as a result the work of the department in the earlier

years was largely a work of education and instruction. As years progressed people gradually became educated to the necessity of food laws and dealers gradually became educated up to the point of observing the food laws of the state. Prosecutions were seldom brought when food laws were violated and it was deemed best to educate both the dealer and consumer along the lines of pure foods and the observance of pure food laws. While this was undoubtedly a proper course to pursue in the early years of the department, I believe that the time has now arrived when the period of education is about completed. Nearly everyone now is perfectly cognizant of the various food laws and there are very few violations at the present time as the result of ignorance. For this reason I think the time has arrived when the policy of more frequent prosecutions should take the place of the educational policy of the past. No prosecutions are started by this department until after the violator has been first warned that he has violated some of the provisions of the pure food laws or where the violation of the law is wilful or malicious. If, after such warning, the person continues to violate the law, then I believe prosecutions should be started and should be pushed vigorously. The policy of warning food violators has been pursued in this state to so great an extent that many of them are beginning to regard it largely as a matter of form and we have found in the operations of this department for the last six months that two or three vigorous prosecutions have been more effectual in correcting abuses than several hundred warnings previously given and for this reason the department has determined on more prosecutions in the future than in the past.

During the year 99 prosecutions were started. There have been 83 convictions and six cases in which either the defendant was acquitted or the suit was dropped. Seventeen cases were pending on July 1st, 1913. Over sixty of these prosecutions were commenced during the last six months of the fiscal year. This is, we believe, the largest number of prosecutions in the history of the department and the coming year will show a much larger number for we have become satisfied that the time has arrived when vigorous prosecutions will be of much more value than the policy of warning which has been pursued in the past.

#### EDUCATIONAL WORK.

The law creating the Dairy & Food Department provides that this department shall give educational work and foster and improve the dairy industries of the state. Former Commissioners have in the past held dairy meetings throughout the state and gave general instruction to farmers and dairy men how to produce milk and grow the necessary crops for the consumption of dairy cows. This line of work is also being taken up by the Agricultural College and the Farm Institutes. The present Commissioner dislikes the overlapping of various state departments and in as much as this field is already covered in two different ways, he has thought it best to discontinue any efforts along these lines. For this reason no effort has been made to hold general dairy meetings in the state although on request, the Commissioner has addressed a large number of these meetings during the past year. It has seemed, however, to the Commissioner that the proper course to pursue in this matter would be to confine the department's educational efforts to such



lines as are not covered by other state authorities. Following this plan I appointed two special creamery inspectors whose duties are to inspect the creameries of the state and also give educational work to cheese makers and buttermakers. This is a line of educational work that is not covered by any other state department and I believe for this reason our efforts should be confined to this line of work. These special inspectors are both men who have spent a large number of years in the actual manufacture of butter and cheese and have taken educational courses in colleges along these lines and if I may believe the reports of various cheese makers and buttermakers throughout the state, these inspectors have been of great assistance in the practical work of cheese making and buttermaking and have saved many thousands of dollars by their expert knowledge in matters of cheese making and buttermaking.

The dairy interests of the state are very large. The last census shows that Michigan is the third state in the Union in the production of cheese and the fifth state in the Union in the production of butter, and educational work along the lines I have indicated will undoubtedly tend to increase both the quantity and quality of Michigan's dairy products.

In further line with this work we have established a series of educational scoring contests for buttermakers and cheese makers. Several of these contests have now been held and a large number of entries have been made, in fact a larger number than in any other state which is carrying on these contests and the results have undoubtedly been of great benefit as the average score of butter and cheese entries submitted has increased with each contest. The quality of Michigan's dairy products ranks below many states in Eastern markets and I am in hopes to remedy this difficulty by further educational work along these lines and by the scoring contests which tell the buttermaker and cheese maker wherein his product lacks the necessary quality to bring the highest price in the market.

In the line of publicity I have also established a system of issuing weekly bulletins on some phase of food, dairy or drug products giving to the public a popular explanation of the food laws in relation thereto and in many bulletins I have exposed to the public the extravagant and false claims made by many manufacturers of foods and medicines. These bulletins are sent to the leading newspapers of the state and released on a given day and they have been generally published by all the papers to whom they are sent and as a result it has been of great educational value to consumers and has undoubtedly saved thousands of dollars to the people of the state. I shall continue this line of educational work during the coming year as there is a great demand for it from all sections of the state.

During the year we have also issued special pamphlets for distribution on matters which are under the jurisdiction of this department. A pamphlet showing how the dairymen can construct a model cow stall that will keep cows absolutely clean and the cost of which is very low, has had a very wide circulation and demands have been made upon us and we have sent this pamphlet to inquirers in every state in the Union. The Dairy & Food Commissioner of Illinois is about to reprint our pamphlet and push the construction of this stall among the

dairy interests of Illinois. We have also issued pamphlets upon the "Care of Milk in Hot Weather," and upon the relative value of different kinds of foods with a popular explanation of the uses and benefits of different foods. These pamphlets have also had a very large circulation and we are preparing to issue still others upon various phases of the work of this department. All this educational work is not performed by any other state department and for this reason we believe it advisable to push the educational work of the department along these lines. The publicity obtained as a result of the issuing of these bulletins and pamphlets has been very great and has resulted in a vast amount of good.

A special law imposes upon this department the duty of enforcing the law against adulterated linseed oils. Linseed oil is manufactured entirely outside of the state and much adulterated oil was shipped into the state and we had no redress upon the manufacturers. As many of the merchants bought the oil as pure oil in good faith, we did not feel like prosecuting them for being the victims of adulterated oil. As a result of these adulterations we finally issued a pamphlet to the public calling their attention to the same and also giving to the public the lists of manufacturers who sell pure oil and also a list of those who we had found to be adulterating their products. This pamphlet became in great demand and many copies of it were reprinted and circulated throughout the United States by the manufacturers of pure oil and as a result of our exposures, manufacturers of adulterated oil now find it very hard work to sell their product in this state and we feel that we can safely say that adulterated linseed oil has been driven out of the state without a single prosecution having been had but by these methods of education and publicity.

#### NEW LEGISLATION.

Upon taking up the work of this department as Commissioner I discovered that many of our laws were defective in certain respects and that we needed many new acts to cover food and drug abuses. As the legislature was in session, the Commissioner devoted the first four months of his term almost entirely to securing from the legislature needed laws. The results of this campaign were very successful and about twenty-five acts were passed by the legislature effecting the work of this department. Three new lines of work were added to the department. The legislature passed a modern Weights and Measures Law and placed the enforcement of it with this department. The law has not yet gone into effect but the necessary apparatus has already been purchased and arrangements are being made to push a vigorous campaign against dishonest weights and measures. The legislature also passed a law placing under this department the testing of sugar beets and provided that the beet sugar factories should contribute the necessary funds to take care of the expense of this inspection. Two sugar beet chemists and inspectors will be appointed and we believe the law will be of great benefit both to the producer of sugar and the producer of sugar beets.

The legislature also passed a law requiring all commission merchants dealing in farm products to take out a license with this department and also providing that disputes arising between producers and com-

mission men should be investigated and settled by the department. We are in hopes that substantial benefits will arise from the operations of this law which does not go into effect until the 1st of October. The legislature also passed a General Misbranding Law which requires the net weight of all food products to be printed upon the package in package goods. This law is uniform with the National Law on the same subject. A law was also passed requiring a specific labelling of condensed milk and the ice cream and oleomargarine laws which have been found legally defective during the year were re-enacted with the defects corrected. The putting of cereal into sausage had become one of the largest abuses in the state and the legislature passed a law limiting the amount of cereal to be placed in sausage at 2% and we expect substantial results when this law goes into effect. I also drafted a bill which prevents the deceptive advertising of any product and this bill was also passed by the legislature and will be of substantial aid to us in prosecuting the violaters of our Food Laws.

#### NEEDED LEGISLATION.

In spite of the large amount of new legislation which the legislature passed effecting this department, there is still a great many other lines that need legislation. We need in Michigan a Baking Powder Law. Nearly every other state has a law governing the manufacture and sale of baking powder. We have none. The present Concentrated Stock Food Law should be extended so as to include so-called stock tonics and condimental feeds. Much fraud is being perpetrated by the manufacturers of these articles in charging the consumer an enormous price for some simple condiment under a coined name. We also need a Pure Paint Law. Linseed oil and turpentine are already under the jurisdiction of this department but it matters little that the consumer can get pure linseed oil and turpentine if the paint that he purchases to mix with it is adulterated. We should have a Pure Paint Law which would require every manufacturer of pigments to state upon the label on the can, the different ingredients of the pigments therein.

#### A MENACE TO THE DAIRY INDUSTRY.

Notwithstanding the fact that the dairy interests of Michigan have enjoyed substantial prosperity during the year and Michigan has become one of the great dairy states, a serious condition faces the butter industry in this state. The manufacture of butter in the state is largely conducted by creameries and a few years ago was most entirely the product of local or cooperative creameries. With the increase of Michigan's dairy cows and the consequent development of the dairy industry, several large concerns established central creameries in Michigan. These institutions are generally known by the name of "centralizers" to distinguish them from those creameries that are local and cooperative. These centralizers, while they manufacture butter from only one central creamery, have a large number of cream buying stations throughout the state. Some of them have upwards of 100 cream stations scattered over the state. As several of them are in operation in the state, many small towns have three or four cream buyers in opposition to the local creamery. Competition is fierce to buy

the farmer's cream and as a result the quality of the butter of the state has materially decreased until good butter in Michigan is the exception and not the rule. When cream, especially in hot weather, is bought by a cream buyer from the farmer who has kept his cream anywhere from three days to a week and this cream is shipped by rail from out-of-the-way places to a central station, by the time it arrives, especially in hot weather, it is unfit for the manufacture of butter. By various processes now used, however, this cream is disinfected by chemicals and finally made into butter. This butter in a few days will show the effects of the bad cream from which it is manufactured and as a result the demand for creamery butter is growing less in the state for the reason that a No. one product is very seldom obtained. Various efforts have been made to have the creamery men grade cream and refuse to buy from the farmer any cream that is not in fit condition for food but the competition between the cream buyers has become so great that if one rejects the farmer's cream on the ground that it is unwholesome, the farmer can always sell it to a competitor.

When the cream producer is requested to take proper care of his cream, he promptly replies "What is the use? They will buy it of me anyway no matter how rotten it is." No buttermaker can perform the miracle of making good butter from bad cream. Cream is an animal product and when once it has started to decay, it can no more be restored to its pristine condition than can a dead dog be restored to life. Unless the creameries of the state make better butter, the butter interest of the state is going to suffer a serious decline in the value of its butter product. In Eastern markets, average Michigan butter is bringing as high as 8c a pound less than the top market price and this represents an immense loss to the dairymen of the state because it is upon them in the end that the loss falls.

Not all butter made in the state, however, is below the average. There are many local creameries which are carefully guarding their cream supply and who make a very high grade of butter for which they obtain the top market price. If requested this department will be glad to furnish the names of creameries in Michigan whom we have found to make a Number 1 article of butter in every respect.

After carefully considering these conditions I am satisfied that there is but one remedy and it will have to be a drastic one. To carry out this policy I had the legislature pass a law defining insanitary milk and cream, and provide a penalty on the milk producer who offers for sale any insanitary cream; also upon the manufacturer who makes any such cream into a food product. It is my intention to issue some educational pamphlets to be distributed among the creameries and cream producers of the state showing how to take care of their cream and keep it in pure condition and also containing copies of this new law. Following up this educational campaign, I intend to examine the effect of it and those who do not follow its precepts and heed its warnings, both producer and manufacturer, will be vigorously prosecuted. This promises to be a most disagreeable job but I am satisfied that it is the only way that the butter industry of this state will be saved from serious disaster.

## IN CONCLUSION.

In conclusion I desire to extend to all the employes of this department my heartfelt thanks for the many courtesies extended. We have a very efficient department force and the department has gone through probably the most active and eventful year in its history and I attribute this to the fact that every employe, both in the office and in the field, has joined in "team work" which has made the operations of the department so successful.

I also desire at this time to extend to my predecessor, Hon. Gilman M. Dame, my sincere thanks for the many courtesies extended to me while I was acting as Deputy Commissioner under him. The experience obtained during my service under Mr. Dame has been of inestimable benefit to me in conducting the operations of the department since I became Commissioner.

Respectfully submitted,  
JAMES W. HELME,  
State Dairy & Food Commissioner.

## DECEPTIVE ADVERTISING OF FOOD PRODUCTS.

BY JAMES W. HELME.

The high cost of many food products has caused much more inquiry than common on the part of the average consumer regarding the price of commodities. With a stationary income and rising prices of food products, much economy must be exercised to "make both ends meet." This situation is being taken advantage of by unscrupulous merchants to deceive the public by furnishing them an inferior grade of various articles, which are advertised as being up to standard quality at a reduced price from the genuine article.

Last March the attention of this Department was called to advertisements in various Detroit newspapers, in which consumers were advised to save money in buying butter by getting some "fresh churned" of the advertiser for ten cents a pound less than creamery butter. Of course the "fresh churned" was not butter at all but Oleomargarine. Window displays and signs likewise had much to say about "try our butter" when Oleo was the only thing in evidence.

The Deputy Commissioner took this matter up with the various advertisers and pointed out to them that the words "Butter" or any similar Dairy term could not be used lawfully in Michigan in advertising Oleomargarine and requested that all such advertising be discontinued. All the offending merchants, with one exception, promptly agreed to cut out all illegal advertising and have not since been guilty of any violation of Michigan laws in this respect.

The one exception was Frank G. Lafer, proprietor of Lafer Brothers store, located at Cadillac Square, Detroit.

Lafer absolutely refused to alter his course in advertising or displaying his goods in any way and defied the Department to make him. Lafer was running each Friday in all the Detroit papers an advertisement like the following:



**DON'T PAY 32c to 34c FOR BUTTER****Thousands of People in Detroit Are****Saving 10c to 12c by Buying****OUR FRESH CHURNED AT****22c and 25c lb.****TRY IT.****5-lb. Pkgs. \$1.05 and \$1.15.****5-lb. Rolls, \$1, \$1.10, \$1.20.****FRESH OLEOMARGARINE****12½c, 14c, 18c lb.**

Complaint was made against Lafer before Justice Stein by the writer. The first complaint was quashed as defective and on a second complaint Lafer was bound over for trial to the Recorders Court.

On a trial in the Recorders Court the case was quashed by Judge Connelly on the ground that the title of the law was defective. The act is entitled "An act in relation to the manufacture and sale of Oleomargarine or imitation butter." Judge Connelly held that the title should have mentioned "advertising" as well as "manufacture and sale," and not doing so the section of the law relative to advertising was void.

Now advertising an article is simply a part of the sale. It is soliciting a purchase by print instead of the primitive verbal method. Believing the decision wrong, this Department caused mandamus proceedings to be commenced in the supreme court to compel Judge Connelly to try the case which proceedings are still pending.

On May 7th, 1912, the writer had a picture of the store front of Lafer Bros. at Cadillac Square taken, which is shown in this bulletin. Note in the picture the large display of rolls of Oleo in each window.

On being questioned by the writer Lafer admitted that the entire display was Oleo, that not a pound of butter was displayed in the window, nor was the word Oleo anywhere in sight. Note the sign under the window in big letters "TRY OUR BUTTER."

On the awning in the picture will be seen a black shadow; this is caused by the figure of an enormous Jersey Cow.

The display, advertisement and signs all taken together were well calculated to deceive thousands of consumers into the idea that they were getting butter at a cut-rate price, when in fact they were getting a low grade of Oleo that cost the dealer about 14c wholesale.

Pending the decision of the Supreme Court, the Deputy Commissioner took up the matter of this deceptive advertising with the Detroit newspapers publishing the same, on the ground that they ought not to be parties in deceiving their readers by publishing these ads. The News, Journal and Times promptly complied with the request of the Department and refused to publish the advertisement in question.

Other merchants called the attention of this Department to the fact that Lafer was advertising to sell Coffee at 18 and 20c per pound, when the cheapest coffee costs the wholesaler 21c in car lots. The Department proceeded to investigate this charge. Recurring to the cut of Lafer's store published herewith, two barrels will be noted; on one is a large placard which states "For coffee buy our Jersey brand, 20c." On the other barrel is a placard which reads "For Coffee buy our special brand, 18c. 3 pounds for 50c." Each of these barrels contained a large amount of coffee in the kernel enclosed by a glass top.

A close inspection would show some ground coffee, but nine-tenths of the contents of the barrel appeared to be coffee kernels of extra good quality. An inspector of this Department was instructed to buy a pound of this 18c brand *in the kernel*. He was informed the firm had none on hand although it advertises that it grinds and roasts its own coffee. The inspector then called for "a pound of the 18c coffee ground." It was given him in a paper sack with the flap turned down several times. On opening the sack at the office on the side of the sack well turned under were found the words "COFFEE COMPOUND," showing it to be an adulteration and not pure coffee.

The words were placed on the sack where they would seldom if ever be noticed by the average consumer.

Advertisements of these "coffees" are still being published in some Detroit papers. There is no law to prevent this kind of deceptive advertising. We believe there should be and this Department will ask the coming legislature to pass a law prohibiting the deceptive advertising of all food products sold within the state.

The man who sells adulterated clothing can at the most do you financial injury, but the man who sells you adulterated food products not only does you a financial injury but may injure your health and that of your family. For this reason Michigan should have a stringent law against the deceptive advertising of good products.

Note.—A deceptive advertising law has been passed by the legislature since the above article was written.

## FEED AND CARE OF THE DAIRY COW.

BY C. V. JONES, STATE DAIRY INSPECTOR.

### MATERNITY OF COW.

The prime incentive to milk secretion is the nurture of the young. The fattening steer utilizes all feed given him in the building up, and in the welfare of his own body. How different it is with the dairy cow, who takes her food, not for building up her own system, but that she may store up nourishment for her young. Food given her at night is converted into milk by morning. So strong is the maternal impulse that, if food fails, the cow will for a considerable time draw from her flesh and bones the substances necessary to obtain the milk flow, in order that her young may be properly nourished.

While it is a fact that the nurture of the young calf was and is the prime incentive to milk secretion, man has taken advantage of the possibilities of the dairy cow and has domesticated her, and finely bred her, until today she is one of the most profitable assets of the farm.

The basis of dairying is the maternity of the cow, and success by this great art is largely dependent upon cognizance of this great basic fact, and the dairyman who would make the greatest success must study dairying from this standpoint.

### SHELTER.

The dairy cow must be comfortably housed in the winter season. The house should not only be warm but should be well lighted and ventilated,



kept perfectly clean and free from dust, and the temperature should not fall below 40° F., nor exceed 65° F. A range from 45° F. to 55° F. being most satisfactory. In the summer time the comfort of the dairy cow needs just as much to be studied as in winter. She should be provided with easy access to plenty of good, clean water, a cool place in which to rest, where she will be protected from the heat of the beaming sun. She should also be protected against the ravages of flies.

#### KINDNESS AND REGULARITY.

It is not only enough to feed and shelter the dairy cow properly but she should be treated kindly. A great dairy authority has said that, "Skillful feeding and wholesome surroundings, valuable though they are; without kindness and regularity, the dairy cow would not perform her very best." The dairy cow must be treated kindly, fed regularly, not be unduly excited and at all times be made contented if we would have her pay large dividends. She should also be milked regularly and by the same person each time as far as possible. It has been claimed by authorities that kind treatment, pleasant surroundings, regularity and uniformity will have a greater influence upon both the quantity and quality of milk, than the kind of food, provided that the ration given contains sufficient nutriment for the maintenance of the animal.

#### FREQUENCY OF FEEDING.

The practice of feeding the dairy cow three or four times a day, as practiced by many dairymen, is not only a foolish practice calling for much unnecessary labor, but is also unprofitable. The ample paunch and the considerable time needed for rumination teach that feeding cows twice daily, morning and evening, with perhaps a little roughage at noon is a very practical and profitable method of feeding. With animals, as with human beings, habit is strong, and a simple system of feeding and stable management should be established and rigorously adhered to.

The cow giving a large flow of milk is as hard worked as a horse. Indeed, in the opinion of the writer, she is much harder worked than the average horse. The average horse on the farm works about ten hours per day and is stabled and left to rest for twelve hours or more, while the dairy cow at night is robbed of all the milk she had labored all day to produce, and is sent away again to labor all night producing milk for the morning milking. So strong is the maternal impulse that the more milk the cow produces, the more milk she is inclined to produce. Since the dairy cow is as hard worked as the horse, any grain given her should be ground or crushed, if not otherwise easy of mastication. Turnips or roots of any kind should be pulped. The practice of cooking feeding stuffs for, or the feeding of slops to, the dairy cow seems to be entirely without warrant, unless, at calving season, when slops for a few days may be fed to advantage. The dairy cow takes kindly to dry feeds and every thing which enters the paunch is quickly soaked and softened, hence no need of feeding cooked foods or slops.

#### COWS SHOULD BE FED GENEROUSLY.

It has been scientifically shown that the cow requires 65 per cent of all the food she can eat to support her own body. Now it is clear

that if the cow is only fed 70 per cent of the amount of food she could consume and put to good use, she will not and cannot produce the amount and quality of milk that she would were she fed the full 100 per cent of food needed. To allow the dairy cow to fall off in her milk through parsimonious feeding is both foolish and unprofitable. Every experienced dairyman knows full well the difficulty of bringing cows back to their normal milk flow after a shrinkage due to scant feeding. The dairyman who allows his cows to fall off in milk because of scant feeding, and lack of stable comforts can scarcely be credited with a super-intelligence.

#### WATER AND SALT.

Cows require a large amount of water for their bodily needs and for milk. Habit with the cow is very strong. If she is confined to water but once a day she will content herself, if she have opportunity then, to secure all the water she wants. But the practice of letting a cow fill herself full of cold water, as she will if only admitted to water but once per day, is both dangerous and unprofitable. The cow that is allowed to fill herself with cold water will spend the next two or three hours consuming energy to drive off the cold, instead of spending that same amount of energy in the production of milk. Besides a paunch full of cold water is not conducive to good health. For winter purposes the stable should have individual stalls supplied with individual drinking basins that should contain water continuously. The cow given the opportunity, will drink after each feed of concentrates. Hence the necessity of keeping water before the dairy cow at all times while housed and fed on dry feed. The very fact that the cow will always drink if possible, after eating concentrates is sufficient proof that she needs water at such a time and not only once a day, as some would say. The dairyman who boasts of a spring or creek to which his cows must daily journey, often in stormy weather, will usually find a conveniently located well, with windmill or gasoline engine, far superior. Cows cannot thrive well without salt. Observation has shown that cows near the sea, where they may have easy access to salt water and where feeding stuffs naturally contain much salt, thrive better than on the inland. The more grain or concentrates and the richer these grains or concentrates, the greater the amount of salt that will be needed. From one to one and one-quarter ounces of salt a day will be needed by the average cow. The great essential is that cows should have daily access to salt.

#### FEED FOR DAIRY COW.

The wise dairyman will bear in mind, that the good dairy cow in full flow of milk is expending as much energy as the hardest worked horse upon the same farm which supports the dairy, and that incessantly for many months. Most dairymen are proprietors of horses and they have learned that the harder the horse is worked the more grain and the less roughage must he have. The same is true for the dairy cow. Except when pasture is exceedingly good, a portion of the cow's ration should consist of rich concentrates, and if she is yielding large amounts of milk, that is, working extra hard, all grain should be crushed. The writer is of the opinion that all concentrates fed to the dairy cow should

be in the easiest possible digestible form, still being dry. In feeding the dairyman's aim should be to supply as much roughage as the cow will readily consume and to this add sufficient concentrates to meet the demands of the dairy cow. Experiment stations both in America and in Europe have so well solved the "dairy cow feed" problem that we know that if good roughage, such as alfalfa or clover hay, with corn silage, is supplied in abundance, from three to six pounds of concentrates such as corn, oats, barley, or millings and other rich byproducts will usually furnish ample concentrates. The higher the feeding quality of the roughages, the smaller will be the amount of concentrates needed per pound of butter fat produced by the cow.

#### LEGUMES AND CORN.

Protein is of vital importance in the production of milk and such legumes as alfalfa, clover, peas, or vetches, contain protein in large proportions. These plants may be readily grown upon every American farm. The dairyman who grows large amounts of corn should also grow legumes so that in feeding roughage the one will balance the other.

It has been shown that the cow producing 30 pounds of milk a day requires a minimum of not less than two ounces of lime daily, this fact gives a new value to the legumes, which are rich in lime.

#### ROOTS.

Mangels for the dairy cow cannot be too highly recommended. In fact almost all roots may successfully be used to replace a large portion of the grain usually fed to cows even when corn silage is fed. The dairyman who can produce a large tonnage of mangels, much alfalfa, clover and silage is in a position to produce milk at a minimum cost, providing he feeds intelligently, treats his dairy herd kindly, feeds and milks with regularity and makes each cow comfortable and contented.

### FORMIC ACID IN FRUIT PRODUCTS.

BY F. L. SHANNON.

(Paper read before the Sixteenth Annual Convention of the American Association of Food, Dairy and Drug Officials.)

It was quite by accident that during an investigation into the character of the fruit products offered for sale at the soda fountains, ice cream parlors, etc., throughout the State of Michigan, the author came upon a sample of fruit syrups that was claimed to contain no preservative, but which would outlast all others in keeping qualities. From previous experience with soda fountain products such a condition could only point to one of two things; either the acme of perfection had been reached in the manufacture and handling of fruit products or the product contained something which exerted a prohibitive tendency to fermentative changes, the growth of molds, etc. The first condition could readily be dispensed with, as we all know that it is an impossibility to prepare a fruit syrup or crushed fruit that will keep any length of

time, when exposed at room temperature in an open dish, unless we add some chemical preservative. This product, however, when allowed to stand for weeks in an open dish along side of a home-made product, would not spoil, while the home-made sample would spoil in a few days. Again when part of the market sample was mixed with the home-made sample, the keeping qualities of the latter were remarkably prolonged. It was therefore quite evident that something had been added to prevent it from changing. An analysis proved that it did not contain any of the nine common preservatives or any of the artificial sweeteners, viz.: benzoic acid, salicylic acid, boric acid, sulphurous acid, hydrofluoric acid, fluoboric acid, naphthol, sulphonic acid, formaldehyde, saccharin, or dulcin. So then the preservative was not one of the ordinary substances used in such products.

One of the chief characteristics of the fruit product was the marked tart or sour taste, when compared to other fruit syrups. This, coupled with the fact that most all preservatives are acid in character lead me to believe that the substance used was no doubt an acid or acid in nature. The determination of the total acidity confirmed in a measure this assumption, as Table II will show.

Most acids used for the purpose are of a volatile nature and are readily removed by steam distillation. Accordingly when this sample was subjected to steam distillation the distillate reacted strongly acid. This then showed two things: First, that the unknown substance was probably an acid, and, secondly, that the acid was volatile.

Of the volatile acids that possess preservative powers and one which has been discussed more or less in the past year, is formic acid, consequently my attention was at once directed to it.

A resume of the literature on formic acid revealed the fact that it has been used for sometime in Germany and England for the preservation of fruit juices, fruit syrups, etc., but it appears not to have received much attention from manufacturers of fruit products in this country.

It has been the general belief among chemists, however, that some preservative other than the ones found, were being used in these products and investigations have been made in various laboratories throughout the country for the purpose of determining the identity of the substance used. Smith, in 1907, found formic acid in a sample of French cherries, but this seems to be the only time formic acid has been found in food products in the United States as a preservative. A number have suspected its use in fruit products and have built up their investigations with that substance in mind, but because of the unsatisfactory and indirect methods of identification and further owing to the fact that many substances respond to these indirect methods, it has been difficult to reach a positive conclusion.

It was found that the methods for the detection of formic acid did not depend on its isolation and subsequent identification, but rather upon the indirect method of its reducing power, principally upon silver nitrate and mercuric chloride. Experiments, however, proved that this could not be taken as positive evidence, as it was found that a number of substances would give a distillate that would reduce both silver nitrate and mercuric chloride. Phosphoric acid, simple syrup, fruit syrups, etc., which were known not to contain any formic acid, when steam distilled, were all found to give a distillate that would reduce these two solutions.

The most satisfactory method found for the positive identification

of added formic acid in fruit products was the distillation method and the subsequent identification of the formic acid, first, by reducing it to formaldehyde with pure magnesium ribbon and sulphuric acid, and the identification of the formaldehyde and secondly, by making the insoluble lead salt and its identification both chemically and crystallographically. The details of both these methods will be found in an article published in the July number of the Journal of Industrial and Engineering Chemistry and Bull. No. 200 Michigan Dairy and Food Department, under the heading, "The Detection of Formic Acid in Fruit Products." But in order that we may have the benefit of any suggestions or criticisms that any member of this honorable body may offer, I shall go over these methods as published:

"To about 200-500 c.c. of the syrup or crushed fruit in a 2-litre long-necked, round bottom flask provided with a Reitmeier bulb, add about 50-100 c.c. of water. Subject to steam distillation, collecting the distillate (usually about 2,500 c.c.) until it ceases to give an acid reaction with litmus. Neutralize with  $N/1$  Na OH, using litmus as an indicator. Evaporate on a steam bath to about 50 c.c., transferring from the large evaporating dish to smaller ones as the volume decreases. Transfer to an Erlenmeyer flask provided with a glass tube about three feet long as an air condenser, add a few pieces of pure magnesium ribbon or wire and a slight excess of dilute sulphuric acid, set in a cool place for an hour, adding diluted sulphuric acid through the tube from time to time as the reaction ceases. Transfer to a suitable distilling flask and collect the first 10 c.c. of the distillate, which will contain most of the formaldehyde if the original syrup contained formic acid."

There are a number of methods used for the detection of formaldehyde and nearly every analyst has his favorite test, however, the methods which proved the most satisfactory in this work were Leach's method, Phloroglucol method, Rimini's method, and the Rescorcin method of the United States Pharmacopoeia. A positive reaction with these four tests was considered conclusive evidence of the presence of formaldehyde.

#### CRYSTALLOGRAPHIC IDENTIFICATION.

Inasmuch as practically all methods for the detection of formic acid previously reported are indirect methods depending upon the decomposition of formic acid or upon its reducing powers, it seemed desirable to attempt the isolation of formic acid in the form of an insoluble salt.

The usual procedure in determining the identity of an organic acid in plants is to prepare some readily crystallizable salt, sparingly soluble in water. Of the various formates the lead salt crystallizes readily without water of crystallization, is very stable and requires 63 parts of water for solution. The formation and identification of lead formate would then constitute a direct and positive proof of the presence of formic acid. After numerous attempts the following procedure was adopted.

Steam distill about 1,000-1,200 c.c. of the syrup as in the first operation, collecting the distillate (2,500-3,000 c.c.) in a receiving flask to which about 5 c.c. of lead hydrate cream has been added. Shake the flask occasionally and as the lead hydrate is dissolved add a few c.c. more, until all the formic acid is combined. Concentrate the liquid in a large dish and set aside in a dessicator. If formic acid was present

in the original material, needle-like crystals of lead formates will form. Wash the crystals with absolute alcohol to remove any lead acetate which may be present, spread on a filter paper and dry. To the crystals apply the following tests:

- a. Aqueous solution will reduce  $\text{AgNO}_3$  upon warming.
- b. Aqueous solution will reduce  $\text{HgCl}_2$  solution upon warming.
- c. Aqueous solution will reduce platinum chloride upon warming.
- d. To a portion of the crystals in a dry test tube add sulphuric acid and warm. Carbon monoxide is generated, which will burn in the tube with a blue flame when ignited.
- e. Transfer some of the crystals to a small distilling flask, treat with conc. phosphoric acid and distillate. The distillate which is formic acid, will react as follows:
  1. Acid to litmus and acid to taste.
  2. Reduces silver nitrate on warming.
  3. Reduces mercuric chloride on warming.
  4. Reduces platinum chloride on warming.
  5. Is reduced to formaldehyde by a magnesium wire and sulphuric acid.

As previously mentioned, it was found that when phosphoric acid and water alone were distilled the distillate would reduce silver nitrate and mercuric chloride solutions. Therefore before test (e) was carried out the phosphoric acid was subjected to distillation until it no longer gave a distillate that would reduce silver nitrate and mercuric chloride solutions. The crystals of the lead compound were then added and the distillation continued.

Although the chemical evidence of the volatile acid obtained from the fruit products used in this investigation is conclusive, it was thought desirable to submit the crystals to Dr. Edward H. Karus, Professor of Geology and Mineralogy, University of Michigan, and he concludes as follows:

"The crystallographic-Optical properties, together with the fact that a distinct reaction for lead is easily obtained upon the plaster tablet with the blow-pipe indicate conclusively that the substance examined is lead formate."

To further substantiate the proof a number of fruit syrups that were known to contain no added formic acid were subjected to steam distillation and an attempt made to separate a lead compound. In some instances a few crystals were obtained but at no time would the crystals give the characteristic test for lead formate.

#### QUANTITATIVE DETERMINATION.

After conclusively proving the presence of added formic acid in fruit products obviously the next step was to determine, if possible, the amount used.

A review of the literature shows that the methods generally used for this determination depend upon the following reactions:

1. The reduction of mercuric chloride to mercurous chloride, the excess of the mercuric chloride solution being titrated back with Potassium

Iodide solution. (Auerbacher and Pluddeman,<sup>1</sup> or by weighing the insoluble mercurous chloride (Franzen and Egger),<sup>2</sup> (Finke).<sup>3</sup>

2. The action of Conc. sulphuric acid measuring evolved Co. (Wagner).<sup>4</sup>

3. The reduction  $\text{KMnO}_4$  in alkaline solution (Klein).<sup>5</sup>

4. The reduction of Platinic Chloride solution with the subsequent weighing of the Metallic Platinum (Bacon).<sup>6</sup>

The Platinum method being one of the latest methods proposed and one that seemed to present the least chance for sources of error, was the first one employed. However, after a number of determinations were made, the results of which were not at all satisfactory, this method was abandoned. The greatest difficulty that the author experienced with this method was in obtaining a reduction of the Platinum chloride to take place at all times. Occasionally the reduction would go on readily and would be complete in one hour, while again it was often found necessary to boil the solution containing the formic acid with the platinum chloride for five to six hours before any reduction was noticed. Further, it seemed impossible to get many results to check concordantly.

The reduction of mercuric chloride solution seems to have been given the greatest amount of attention of all the remaining methods and a great amount of work has been done in its perfection, although at the present time, owing to the fact that there are many things which reduce mercuric chloride in acid solution it is not an absolute quantitative method. Experiments with it show, however, that very close results can be obtained. The method used in the experiments reported here was practically that of Frazen & Eggra, and was carried out as follows:

Preparation of Modified Mercuric Chloride Solution:

$\text{Hg}(\text{Cl})_2$ .....	200 grammes.
$\text{NaC}_2\text{H}_3\text{O}_2$ .....	300 grammes.
$\text{NaCl}$ .....	80 grammes.

Dissolve in 1,000 c.c. of water. Let stand 48 hours and decant supernatant liquid.

To a weighed portion of the sample (50-60 gms.) in a 2-litre round bottom flask add distilled water until the volume of the whole is about 100 c.c., subject to steam distillation, collecting the distillate until it ceases to react acid. (Usually about 1,500-2,000 c. c.). Some precaution must be taken to keep the material in the distilling flask from caramelizing and the volume must not be allowed to increase. Exactly neutralize the distillate with N/L NaOH using litmus as an indicator, evaporate to 50-60 c.c. on a water or steam bath, keeping the reaction constantly alkaline throughout the entire evaporation. Filter the solution into an Erlenmeyer flask and add dilute hydrochloric acid until slightly acid. For every .5 gms. of formic acid present per litre of distillate, add 50 c.c. of the modified mercuric chloride solution. Attach to a reflex condenser and heat the flask in a bath for three or four hours in which the entire flask is surrounded with steam. Collect the mercurous chloride, dry and weigh.

<sup>1</sup>Zeit Nahr. Genussm. 17, 425.

<sup>2</sup>Journ. Praktische Chemie 83, 323.

<sup>3</sup>Zeit. Nahr. Genussm. 31, 1, 22, 88-104.

<sup>4</sup>Zeit. Analyt. Chemie 42, 427.

<sup>5</sup>Analyst. 1906, 31, 410.

<sup>6</sup>Circ. 74, U. S. Dept. Agric. Bur. of Chemistry.

This method was carried out on a number of fruit syrups, the results of which are given below:

PRELIMINARY WORK—TABLE I.

Sample No.	Kind of Syrup.	Formic Acid Added.	Formic Acid found by HgCl <sub>2</sub> method.
1.	Blank (water) .....	0.34917	0.34828
2.	Simple Syrup .....	0.0000	0.0093
3.	Simple Syrup .....	0.087	0.085
4.	Simple Syrup .....	0.070	0.062
5.	Simple Syrup .....	0.2204	0.2020
6.	Pineapple Syrup, containing 0.1% Na Benzoate .....	0.2246	0.268
7.	Strawberry Syrup, containing 0.1% Na Benzoate .....	0.2314	0.2508

TABLE II.

Sample No.	Kind of Syrup.	Total Acidity expressed as H <sub>2</sub> SO <sub>4</sub> .	Formic Acid found by HgCl <sub>2</sub> .
8.	Pineapple .....	0.555	0.219
9.	Pineapple .....	0.562	0.251
10.	Pineapple .....	0.552	0.267
11.	Pineapple .....	0.529	0.283
12.	Strawberry .....	0.505	0.172
13.	Strawberry .....	0.525	0.173
14.	Strawberry .....	0.499	0.176
15.	Claret .....	0.357	0.008
16.	Pineapple .....	0.355	0.005
17.	Strawberry .....	0.355	0.014
18.	Strawberry .....	0.274	0.020
19.	Pineapple .....	0.270	0.011
20.	Pineapple .....	0.250	0.004
21.	Pineapple .....	0.209	0.004
22.	Pineapple .....	0.195	0.007
23.	Pineapple .....	0.174	0.004
24.	Strawberry .....	0.186	0.008
25.	Imitation banana .....	0.016	0.005

The statement previously made, viz., that the mercuric chloride method is not absolutely accurate when carried out in the manner described above now becomes evident. As it will be noted that simple syrup alone gives a distillate capable of reducing mercuric chloride. However, samples Nos. 8, 9, 10, 11, 12, 13 and 14 gave an abundant amount of formaldehyde and lead formate and can be reported as positively containing added formic acid in considerable amount.

It would then seem that the formation of formaldehyde, coupled with the formation of lead formate and their subsequent identification would furnish a conclusive and positive proof of the presence of formic acid, and that the mercuric method is the most reliable method for determining the amount used.

The author is indebted to Mr. A. R. Todd of this laboratory for assistance in the work herein reported, and also to Dr. Edward H. Krause, of the University of Michigan, for his co-operation.



## THE DETERIORATION OF SPIRITS OF NITROUS ETHER.

BY F. L. SHANNON.

Spirits of Nitrous Ether or commonly called Spirits of Nitre, is defined by the 8th Revision of the United States Pharmacopoeia as "An Alcoholic Solution of Ethyl Nitrite yielding, when freshly prepared and tested by the method given in the U. S. P. not less than 4% of the Ethyl Nitrite."

That this 4% of Ethyl Nitrite is easily lost under improper conditions is a matter of common knowledge among those who have anything to do with this preparation. Reports of various State Departments charged with the enforcement of the drug laws show that this preparation has caused more or less trouble. It appears that the fault lies mainly in the manner in which it is stored. In the state of Michigan the records of the laboratory show that during the year of 1912 over 75% of the samples examined were found to fall below the required standard of the U. S. P. When some of the manufacturers of these preparations were asked to explain why their Spirits of Nitrous Ether did not conform to the U. S. P. their reply was that it is impossible to keep such a volatile preparation for any length of time and have it of standard strength. However investigation into the manner in which such pharmacists stored their preparations generally disclosed the fact that they were not keeping it in strict accordance with the U. S. P. directions; only making a half hearted attempt, if making any at all, to store it as their Pharmacopoeia told them to.

In order that we might enlighten these people, this laboratory started an experiment sometime ago, to determine the keeping qualities, so to speak, of Spirits of Nitrous Ether. The plan of the experiment was to duplicate as nearly as possible conditions as may be found in any medium class drug store, by selecting bottles of various sizes and colors, by storing in a semi-dark place and at a temperature that could not be called cool. Thus it will be seen that the directions of the U. S. P. were not followed to the letter but were only attempted and carried out in an incomplete manner.

The experiment was conducted as follows: On March 5th, 1911, a quantity of Spirits of Nitrous Ether was made up and placed in seven bottles. The bottles used were ordinary half pound and one pound bottles, two of which were of amber glass, one green glass, and four flint glass bottles, such as may be found in any drug store. Each bottle when filled, was securely fitted with an ordinary cork stopper. The bottle was then thoroughly shaken and an assay made of its contents.

The bottles were again securely stoppered and placed in a semi-dark place in a room adjoining the working laboratory, the temperature of which is about the same as that in the laboratory, viz., 65°-75° F. At the end of three months the bottles were removed and the contents assayed. This procedure was continued for a period of fifteen months, assaying the contents of the bottles at intervals of three months each,

except the time between the fourth and fifth assays, when a period of four months elapsed, and the results tabulated in the following table:

TABLE I.

Sample No.	Size of Bottle.	Kind. Amber.	First Assay March 5, 1911. Time of Filling.	Second Assay June 5, 1911.	Third Assay Sept. 5, 1911.	Fourth Assay Nov. 5, 1911.	Fifth Assay March 5, 1912.	Sixth Assay June 5, 1912.
1	12 oz.	Amber...	3.98	3.95	3.83	3.73	3.70	3.56
2	12 oz.	Amber...	3.99	3.86	3.73	3.61	3.53	3.45
3	16 oz.	Green....	3.95	3.88	3.81	3.71	3.66	3.60
4	8 oz.	Flint....	3.97	3.68	3.52	2.14	2.14	1.88
5	8 oz.	Flint....	3.94	3.77	3.42	3.41	1.25	.....
6	16 oz.	Flint....	3.95	3.72	3.42	3.42	3.20	2.94
7	8 oz.	Flint....	3.92	3.39	3.39	3.10	3.10	2.89

TABLE II.

Loss at end of—	2 mos. 7 samples.	6 mos. 7 samples.	9 mos. 7 samples.	12 mos. 7 samples.	15 mos. 6 samples.
Maximum.....	0.53	0.53	1.83	2.69	2.09
Minimum.....	0.03	0.14	0.25	0.28	0.35
Average.....	0.207	0.37	0.65	1.01	0.90

TABLE III.

Loss of samples stored in colored bottles at the end of—	3 mos.	6 mos.	9 mos.	12 mos.	15 mos.
Maximum.....	0.13	0.26	0.38	0.46	0.54
Minimum.....	0.03	0.14	0.25	0.28	0.35
Average.....	0.07	0.18	0.29	0.34	0.44

A study of the table will show that for the first six months the samples retained their strength very well, the maximum loss under these conditions being only .53% with an average for the whole of only .37%. The greatest loss during the entire time seems to be in the samples stored in the flint glass bottles, although with the exception of Sample 4 the remainder kept fairly well for the first nine months. During the latter part of the experiment, however, the samples in the flint glass bottles decreased considerably, while those in the amber and green colored bottles decreased in strength only a small amount in the whole fifteen months and the decrease was quite regular; the maximum being but 0.54% with an average of 0.44%. It would therefore appear that Spirits of Nitrous Ether, when manufactured properly so that it will contain 4% Ethyl Nitrite when freshly prepared and stored in small dark colored bottles in a cool place will remain standard strength for a long period of time. The Pharmacist should make up this preparation in such

quantity that the whole can be disposed of in a period of six months. He then should have no fear that he is not dispensing a U. S. P. article all the time.

I am indebted to Mr. A. R. Todd of this Laboratory for assistance in this experiment.

## ADULTERATED SAUSAGE.

BY J. W. HELME.

In the year 1907 this Department issued a statement showing the growing tendency of sausage manufacturers to adulterate sausage by placing therein some form of cereal with added water. The form generally used was potato flour, because that cereal will absorb and hold more water than any other kind. The efforts of this Department to stop this practice were frustrated at that time by Armour & Co., who brought suit in the Michigan courts to restrain the Department from enforcing any order against sausage with cereal. After some expensive and lengthy litigation the Michigan Supreme Court finally decided that sausage with cereal might be sold in Michigan provided that it was labeled "Sausage with Cereal," not only in the original package, but also on the package sold at retail to the consumer.

Unfortunately the Supreme Court did not determine the amount of cereal that might be placed in sausage. In Iowa 5% was allowed and Armour & Co. claimed to be using from 2 to 10% in their sausage.

But once the door is open to the food adulterator, progress is swift and sure toward worse conditions. Ninety per cent of the cereal sausage now sold the consumer in this state by the retail dealer is not labeled. If 2 to 5% of cereal in sausage is a necessary and good thing, the manufacturer soon took the advanced ground that more is better. Consequently conditions have grown worse since the decision. How much worse is shown by the following facts:

On the 20th day of December, 1912, the Commissioner of this Department was called up by 'phone at the Detroit office by Mrs. E. Pepke, 280 West Grand Boulevard, who stated something was the matter with her sausage. The sausage was purchased in a stall in the Central Market. The inspector at once called at the address and obtained some of the sausage complained of. An analysis of this unofficial sample showed the presence of 22% cereal in the uncooked sausage and 17% in the cooked sausage. Upon receiving the report of the State Analyst on this sample, Inspector Whipple of Detroit was instructed to trace down the sausage to its manufacturer and obtain direct from him an official sample for analysis. This was done and Inspector Whipple forwarded to this Department a sample of sausage obtained from a stall in the General Market, the sausage being manufactured by the "Clover Top" Sausage Co. of Detroit. The following is the report of the State Chemist on this sample:

"Hon. James W. Helme, State Dairy and Food Commissioner:

"I herewith report on the analysis of sample of pork sausage K-168. The cereal used in this sausage is corn flour. Taking into consideration the moisture content as 45% and allowing for the use of about 2 to 3% spices, etc., this analysis would then indicate that the sausage was composed of about the following ingredients:

Water .....	45%
Corn flour .....	20 to 25%
Spices .....	2 to 3%
Moisture free meat .....	30 to 35%

The analysis of eleven samples of sausage by the United States government show the following:

Water .....	39.8%
Total carbohydrates .....	1.1%
Moisture free meat .....	59.1%

Comparing this analysis with the analysis of Sample K-168 it is quite evident that the addition of cereals in this manner is not only a fraud, but it permits the addition of more water. Generally the addition of water and cereal to sausage is evidence of inferiority and they are frequently added for the very purpose of concealing inferior ingredients.

F. L. SHANNON,  
State Analyst."

When a sausage manufacturer can get from 65 to 70% of water and corn flour in his sausage he is certainly "going some," yet under our Supreme Court decision this is simply "Sausage with Cereal," and may lawfully be sold in Michigan. In fact, if it were 95% water and cereal and 5% meat it would still be the lawful product of Sausage with Cereal.

When the consumer pays 15 cents a pound for "Sausage with Cereal" he is paying at the rate of \$300 a ton for corn meal which can be bought anywhere for \$30, or still worse, he is paying 15 cents a pint for water which can be procured for nothing, and still we wonder at the high cost of living and long for the sausage that they used to make way down on the farm.

The shrinkage of sausage on cooking is due to the evaporation of the added water that is held in the sausage by the cereal.

The people of Michigan are being swindled every month out of thousands of dollars by the "Sausage with Cereal" fraud and they should have some relief. This Department has prepared a bill for legislation defining sausage and prohibiting its adulteration with any cereal or added water. The bill has been introduced by Senator Murtha in the senate.

We ask all citizens of Michigan who believe in a fair deal for the consumer to write your member of the legislature and urge the passage of the Murtha bill providing for pure sausage.

Note.—A sausage law has been passed by the legislature since the above article was written.

## SALVET.

BY J. W. HELME.

During the month of January readers of agricultural papers published in this state and elsewhere, will have noticed large, expensive advertisements, advertising Salvet, a so-called stock food and "conditioner." These advertisements announce that Salvet is the "great worm destroyer" and "great live stock conditioner." The advertisements state that "Salvet will work a remarkable change on your sheep, your hogs, your horses and cattle; make them thrive better, look better, put on more flesh and above all get rid of the worms and parasites." Another ad. states that "Salvet will save your sheep, save your hogs, protect your stock against deadly plagues, by first getting rid of the blood sucking, life sapping, disease breeding worms." The advertisement does not state directly that Salvet will cure hog cholera, but it publishes letters from several farmers, who state that their neighbor's hogs had died from cholera while the writer was feeding the wonderful Salvet, and the advertisement in one place refers you to testimonials as to "how it prevented losses when contagious diseases were all around them."

What is this wonderful Salvet, which is so highly advertised? A package bought on the open market by this Department on being analyzed showed that Salvet consisted of 95% common salt, and a small amount of Sulphate of Iron, commonly known as Copperas. The North Dakota Experiment Station in analyzing the same food, states that there were very small quantities of gentian and sulphur also in this mixture. In one hundred pound lots this wonderful remedy is being unloaded on the farmers at the rate of \$5.00 per one hundred pounds, which is surely a good profit on common salt.

This Department does not make any assertions as to whether or not this wonderful remedy which is composed of 95% common salt will kill worms, prevent hog cholera and otherwise condition stock to a better degree. We will leave it to the good sense of our farmer friends as to whether or not a mixture of salt, sulphur and charcoal will accomplish these wonderful results. If any of our farmer friends are inclined to think that they can be benefited by feeding this wonderful remedy, then by all means let them save money by mixing it up on the farm. The following formula can be used and we are confident that it will give equally as good results as the much-lauded "Salvet."

A formula per 100 pounds of this preparation derived from our analysis would be made up about as follows:

	Pounds.	Cost.
Common Salt .....	95	\$0.34
Copperas (Powdered) .....	$\frac{1}{2}$	.05
Charcoal (Powdered) .....	$2\frac{1}{2}$	.05
Drugs .....	2	.30

One Experiment Station states that this preparation contained sulphur, tobacco and gentian in very small quantities, therefore, the two pounds of drugs could be made up of a mixture of these three drugs.

This preparation should be prepared in the following manner: Thoroughly mix the copperas with the drugs, then add the charcoal a little at a time, mixing after each addition. Finally add the common salt, a few pounds at a time, mixing as before until all the salt has been added. The preparation is then ready for use. In these days of the high cost of living we must regulate the ration of the cow and the pig. Why pay 5 cents a pound for Hog Tonic when you can make it for less than a cent a pound?

## COOK'S CONCENTRATED SUBSTITUTE FOR EGGS.

BY J. W. HELME.

In the Detroit and Grand Rapids papers for the last few weeks have appeared various reading advertisements relative to an article which is called "Cook's Concentrated Substitute for Eggs." The following advertisement taken from a Detroit paper is a fair sample of such advertisement:

"The American housewife will be delighted to know that she need never again pay more than one cent each for eggs for baking. The famous formula for 'Cook's Concentrated Substitute for Eggs' has been brought from England, by an American company, and placed upon the market here. The grocer is now ready to supply the housewife. This preparation is guaranteed under the Food and Drugs act, extremely wholesome and full of egg value. It is used in every home in England and American women are quickly adopting it here. A 15c package of Cook's Concentrated Substitute for Eggs is equal to 15 eggs."

The advertisement further states that "this wonderful preparation never spoils from the action of heat and cold." Another reading advertisement makes this statement: "An English scientist has invented a wonderful substitute for eggs, which is wholesome and takes the place of eggs in all forms of baking, even going so far as to eliminate the necessity of baking powder," and still another advertisement states "that it does everything in the baking line that eggs will do."

The first advertisement we quote is a form of vicious deceptive advertising that is being practiced generally at this time by food fakes. Note the sentence "this preparation is guaranteed under the Food and Drugs Act, extremely wholesome and full of egg value." The average reader not noticing the small comma things that the United States government through its pure food department has guaranteed Cook's Substitute for Eggs to be "full of egg value." Of course as a matter of fact, the United States Pure Food Department does not guarantee any food. It issues a Serial Number on foods, but does not guarantee any of them. The manufacturer has to do that.

What is this wonderful substitute for eggs? It excited the curiosity of this Department and a box was bought on the open market and an analysis made. Cook's Substitute for Eggs consisted approximately of baking powder 81%, starch 18% and about 1% of yellow analine dye which we presume contains a great amount of the "egg value" in the compound. In other words, Cook's Substitute for Eggs is merely common baking powder with a little starch added and colored yellow with analine

dye. A significant statement appears on the box in which it is contained. It says that "it is not necessary to use baking powder with Cook's Substitute for Eggs." This is really a truthful statement. It is no more necessary to use baking powder with Cook's Substitute for Eggs than it would be to paint the lily or gild refined gold. Just why this article was not named "Cook's Substitute for Ham" passes our comprehension. It would be fully as good a description as "Cook's Substitute for Eggs." Up to date restaurants are not yet using Cook's Substitute for Eggs with their orders for ham, but this Department is watching them very closely to prevent any attempt to substitute colored baking powder for cold storage eggs.

Many thousands of people in Michigan will be fooled by this deceptive advertising which shows again the necessity of having a law in Michigan punishing deceptive advertising. The newspapers are not to blame. The advertising manager cannot have a research laboratory at hand to investigate the statements of advertisers, but the advertisers themselves know whether their advertising is deceptive. They are the ones to be punished. This Department has caused to be introduced into the House by Representative Montieth, a bill punishing deceptive advertising and we hope that all our newspaper friends will join us in getting this law placed upon the statute books of Michigan.

Note.—A deceptive advertising law has been enacted by the legislature since the above article was written.

## CONSUMPTION CURES.

### LUNG GERMINE.

BY A. R. TODD, DRUG ANALYST.

Although the Lung Germine Company of Jackson, Michigan, was exposed in the Journal of the American Medical Association in 1910 the company is still doing business under the same name, as is evident from their advertisements, which are to be found in many magazines of the cheaper sort.

About the 17th of December, 1912, the writer answered one of these advertisements and received by return mail circulars, testimonials, diagnosis blanks and a book entitled "Consumption, its cause and its treatment," and a very friendly, sympathetic letter enumerating the symptoms of tuberculosis, urging the patient to be, to start the treatment immediately. There was also inclosed a worthless guarantee.

In ten days some more testimonials followed, accompanied by a letter even more urgent than the first, in its attempt to persuade the patient to accept the treatment before it was too late. In the third letter received two weeks later the company offered to send a full month's treatment for \$3.00, the balance of \$2.00 to be paid when the patient was able. With this letter was a circular at the beginning of which in large sized type were the words, "Advanced Consumption Permanently cured by Lung Germine," and on the back, "Here is a Sworn Statement proving that Lung Germine cures Consumption absolutely and permanently."

In the fourth letter, nine days later, a final appeal is made. The patient's lack of confidence is to be overcome by allowing \$5.00 for the first month's treatment to be deposited at any bank in his city to be held in trust for thirty days, at the end of which time if any benefit has resulted the money is to be forwarded to the company.

Finally about the middle of January, 1913, the writer filled out the diagnosis blanks and sent them with \$5.00 for a full month's treatment and received in return a two ounce bottle of medicine and a letter saying, among other things, "Do not misconstrue our guarantee. We do not guarantee to cure you."

\*Sample was analyzed in the Department Laboratory, the report being as follows:

Contents of Bottle .....	2.2 oz.
Alcohol (Absolute) .....	15.0%
Sulphuric Acid .....	14.2%
Ferric Sulphate .....	0.5%
Water—About .....	70. %

Sample is a Solution of Sulphuric Acid and Ferric Sulphate in Wine.

In order to have expert medical advice on the subject a copy of the Laboratory report, together with the following letter, was sent to Dr. R. L. Dixon, Secretary of the State Board of Health:

"I am inclosing the Laboratory report of an analysis of a so-called consumption Cure. Will you, as a physician, kindly give me your opinion as to the curative properties of this preparation? Will it cure well developed tuberculosis? Will it cure tuberculosis in primary stages? Would it be of any therapeutic value whatsoever in the treatment of tuberculosis? What can you say in regard to charging \$5.00 for a 2 oz. bottle of the preparation? Thanking you in advance for your courtesy in the matter, I am, etc."

In reply Dr. Dixon says:

"I have received your communication transmitting to me an analysis of a so-called consumption cure, and asking me definite questions regarding same. Replying to your question, I will state: In my judgment the preparation referred to has no curative properties in relation to tuberculosis in any of its stages. The only therapeutic value that this remedy could have, is that it might have, and undoubtedly would have, some "tonic effect." This, however, might give the consumptive a false feeling of security and improvement, thereby causing him to avoid such treatment as would be required in order to cure or relieve him of consumption.

The amount charged for this preparation is unreasonable in proportion to the claims. It is a preparation which should be avoided by every person who has consumption, because it will do him absolutely no good, and may ultimately do him harm by giving him a false feeling of security

\* Note.—Upon examination the sample was found to be a light brown transparent liquid possessing an alcoholic odor resembling wine, and a strong acid taste. The qualitative analysis indicated the presence of Alcohol, Free Sulphuric Acid, Iron in the form of Ferric Sulphate and a trace of organic matter.

Further tests indicated the absence of Alkaloids, Chloroform, Chloral Hydrate, Iodides, Bromides, Chlorides, Phosphates, Nitrates or essential oils.



when he should be aware of his actual condition, and receive treatment accordingly."

Dr. Dixon's letter needs no comment.

Looking at the matter from a commercial point of view, it is interesting to calculate the cost of the preparation and the profits that exploiters of Lung Germine are making on each two ounce bottle.

Alcohol @ \$3.10 per gallon .....	.00775
Sulphuric Acid @ 17c per lb. ....	.00286
Ferric Sulphate @ 27c per lb. ....	.000017
Total .....	.010627

The prices quoted are from Merck's Report for January, 1913. With a very liberal allowance for bottling and labeling the preparation costs the company less than 10 cents per bottle. In other words, the Lung Germine Co. is making a profit of practically 5000% on every bottle sold.

In conclusion let me say that it is a fact very well known among persons who have to deal with consumptives that no other class of patients is so susceptible to psychic influence. A new mode of treatment or even a change of individuals giving a treatment invariably results in a temporary change for the better. Taking advantage of this susceptibility the dealer in fake consumption cures reaps a rich harvest enticing his victim on with alluring advertisements and wonderful testimonials.

Time and again have these frauds been exposed and yet because of the apparent laxity of our laws the fakers are essentially immune. How long will it be before the people, not of Michigan alone, although with shame we admit that we have our full quota of charlatans, but the people of every state in the union and of every civilized country on the globe become sufficiently enlightened and aroused to the viciousness of this particular form of quackery and demand and obtain its abolishment?

We have state institutions for the blind, the insane and feeble-minded and those persons unable to provide for themselves. Surely those afflicted with the Great White Plague need protection just as badly and the least we can do for them is to make it legally impossible for them to be preyed upon by those despicable villains who advertise to cure consumption.

## OXIDAZE TABLETS.

BY J. W. HELME.

This Department recently gave an analysis of the Lung Germine Consumption Cure located at Jackson, Michigan. At Howell, Michigan, the home of Michigan's Institution for the cure of Tuberculosis, a "remedy" is just now being much advertised and pushed. It is called "Oxidaze Tablets" manufactured by the American Oxidaze Company of Worcester, Mass.

Their circulars do not directly claim the Oxidaze Tablets will cure any-

thing, but the circular says "let the people talk" and then follows the usual testimonials showing complete "cures" from Tuberculosis, Pneumonia, Asthma and Laryngitis. It is also claimed to be a remedy for Whooping Cough. The patient is warned that the tablets must be taken for months.

An inspector of this Department bought a sample bottle of these tablets at Howell. There were ten tablets weighing in all 277 grains. Each tablet of 27 grains contained 23 grains of common sugar, a little over 2 grains of starch and about 2 grains of essential oils, oil of cinnamon predominating. The whole ten tablets which retail for 35 cents cost about 1-3 of a cent. The tablets are rightly named "Oxidaze," for the sugar cure for tuberculosis would certainly daze an ox. The consumer in these tablets pay \$7.50 a pound for loaf sugar which he can buy for 9c a pound and which is just as good a cure for Tuberculosis, Pneumonia, Asthma and Whooping Cough as these Oxidaze Tablets, which are called in the circular "Nature's Remedy."

### LINSEED OILS.

BY J. W. HELME.

Pure Linseed Oil made from flaxseed is the life of all paint, but it is expensive and this tempts unscrupulous persons to adulterate the same. The adulteration is usually done by mixing with Linseed Oil from 10 to 40 per cent of Petroleum Oil. The season for painting is rapidly approaching and with it numerous adulterations of Linseed Oil are prevalent in the state. In the last three months 18 samples of Linseed Oil have been analyzed, 11 of which have been found to be adulterated. The result of the eleven adulterated samples are as follows, as shown by the report of the State Analyst.

No.	Manufacturer.	Adulteration.
26355	American Linseed Oil Co., Cleveland, Ohio.....	Contains about 35% petroleum oil.
26277	Globe Oil Co., Cleveland, Ohio.....	Contains about 7% petroleum oil.
26541	The Monitor Oil Co., Cleveland, Ohio.....	Contains about 12% petroleum oil.
25642	The Monitor Oil Co., Cleveland, Ohio.....	Contains about 16% petroleum oil.
25643	The Monitor Oil Co., Cleveland, Ohio.....	Contains about 20% petroleum oil.
25936	American Linseed Oil Co., Cleveland, Ohio.....	Adulterated with petroleum oil.
25935	Sun Linseed Oil Co., Richmond, Virginia.....	Adulterated with petroleum oil.
25958	Standard Linseed Co., Cleveland, Ohio.....	Adulterated with mixture of turpentine and petroleum oil.
26116	Standard Linseed Co., Cleveland, Ohio.....	Contains about 30% petroleum oil.
26340	Globe Oil Co., Cleveland, Ohio.....	Contains about 40% petroleum oil.
26343	Southern States Turpentine Co., Cleveland, Ohio...	Contains about 25% petroleum oil.

Linseed Oil at the present time is retailing for about 60 cents per gallon in barrel lots. The Petroleum Oil generally used as an adulterant of Linseed Oil is called "Neutral Oil" or "Tex," meaning Texas Neutral Oil. It can be bought as low as 13 cents per gallon. It is a non-drying oil, consequently when paint thinned with Linseed Oil containing it is spread, the paint will not dry and in a short time begins to peel off. A

37½ gallon barrel of "Raw Linseed Oil" similar to sample No. 26340 would contain about 15 gallons of petroleum oil. At 13 cents per gallon this would cost \$1.95. As it is the custom of the Globe Oil Company to under-sell their competitors this "Raw Linseed Oil" would probably sell for about 49 cents to 50 cents per gallon, hence if one were buying a barrel of this oil he would be paying 49 cents a gallon or \$7.35 for 15 gallons of petroleum oil.

#### SUGGESTIONS TO CONSUMERS.

In buying oil, look at the label on the barrel and get the manufacturer's name and address. Avoid oils made in Cleveland; they are almost universally adulterated. The Sherwin-Williams Company is a notable exception to this rule. Don't pay 50 to 75 cents a gallon for Kerosene Oil mixed with Linseed Oil. It spoils both your paint and your pocket-book. Don't get confused on names. The American Linseed Company of Chicago universally furnishes pure oil, while the American Linseed Oil Company of Cleveland universally furnishes adulterated oil. In deciding a court case in favor of the Minnesota Dairy and Food Department, Judge Willard of the United States Circuit Court said, "There is no evidence that the American Linseed Oil Company of Cleveland ever sold in Minnesota or elsewhere any pure Linseed Oil. The only products it ever sold in Minnesota never contained more than 66% of Linseed Oil." Upon application of any person, this Department will furnish a list of the names of forty manufacturers of Linseed Oil whose product has been universally found pure by this and other stations. Dealers selling adulterated oils will be promptly prosecuted by this Department.

With the prevailing prices of Linseed Oil, the temptation to adulterate and sell the adulterated article for "Pure Linseed Oil," is great. Consequently, there are firms doing business in Michigan who are resorting to such practices to secure trade. They or their agents are offering Linseed Oil at six or seven cents per gallon below the daily market quotation, so if any firm or agent offers you "Pure Linseed Oil" at a price lower than the market quotations, less the jobber's commission, look out for them. They are in all probability offering you a product adulterated with a small amount of a mineral or vegetable oil.

Dealers are therefore cautioned to buy Linseed Oil from such firms as are known to sell pure, unadulterated oil. The following list of manufacturers is compiled from the published analyses of linseed oils made by various state departments, augmented by a list taken from a published address by G. W. Thompson, delivered at the 18th Annual Convention of the Master Painters' and Decorators' Association of Ohio. We have attempted to make this list complete and believe it to be reliable.

- \*American Linseed Company ..... Chicago, Ill.
- Archer-Daniels Linseed Co. .... Minneapolis, Minn.
- Amsterdam Linseed Oil Works ..... Amsterdam, N. Y.
- Atlantic White Lead and Linseed Oil Works.. Brooklyn, N. Y.
- Chicago White Lead and Oil Co. .... Chicago, Ill.
- \*Cleveland Linseed and Oil Co. .... South Chicago, Ill.
- \*Crown Linseed Oil Works. .... St. Louis, Mo.

*Dean Linseed Oil Co.....	New York, N. Y.
*Des Moines Linseed Oil Works.....	Des Moines, Iowa.
Forman Ford & Company.....	Minneapolis, Minn.
Fredonia Linseed Oil Works .....	Fredonia, Kas.
Grove Linseed Oil Co.....	Philadelphia, Pa.
Hauenstein & Co.....	Buffalo, N. Y.
Hills-Benedict Linseed Oil Co.....	Chicago, Ill.
Hirst & Begley Linseed Co.....	Chicago, Ill.
*Kansas City Lead & Oil Works.....	Kansas City, Mo.
*Kellogg & McDougal Works.....	Buffalo, N. Y.
Lewis, John T. & Bros. Co.....	Philadelphia, Pa.
Mann Bros. Co.....	Buffalo, N. Y.
*Metzger Linseed Oil Works .....	Toledo, O.
Metzger Seed and Oil Co.....	Toledo, O.
Midland Linseed Co.....	Minneapolis, Minn.
Milwaukee Linseed Oil Works .....	Milwaukee, Wis.
Minnesota Linseed Oil Co.....	Minneapolis, Minn.
Mound City Paint and Color Co.....	St. Louis, Mo.
National Lead Co.....	Brooklyn, N. Y.
National Lead and Oil Co.....	Pittsburg, Pa.
*Northwestern Linseed Oil Works.....	Minneapolis, Minn.
Northern Linseed Oil Co.....	Minneapolis, Minn.
O'Brien Varnish Co.....	South Bend, Ind.
Pacific Oil and Lead Works .....	San Francisco, Calif.
Portland Linseed Oil Works, Inc.....	Portland, Ore.
Red Wing Linseed Co.....	Red Wing, Minn.
Sherwin-Williams Co.....	Cleveland, O.
*Sioux City Linseed Oil Works .....	Sioux City, Iowa.
Spencer Kellogg Co .....	Buffalo & Minneapolis.
*Toledo Linseed Oil Works.....	Toledo, O.
Toledo Seed & Oil Co.....	Toledo, O.
*Wright & Lawther Linseed Oil Works.....	Chicago, Ill.
*Wright & Hills Linseed Oil Works.....	Chicago, Ill.
*Woodman Linseed Oil Works.....	Omaha, Neb.

\*These firms are a part of American Linseed Co., Chicago, Ill.

Jobbers often sell Linseed Oil under their own labels, although they are not the manufacturers of the product. They will as a rule, upon request, cheerfully furnish you with the name of the manufacturer and give their opinion as to their reliability.

The Michigan Linseed Oil Law is very plain and points out clearly the course for the manufacturer, dealer or jobber to pursue if he wishes to sell anything, besides pure linseed oil.

For your further information we give below a compiled list of the results of the analyses made in the Laboratory of this Department and reported by the State Analyst during the years 1912 and 1913.

It should be remembered that the State Authorities have no jurisdiction over persons outside of our own state, they are beyond the reach of Michigan's courts, but dealers who persist in selling for "Pure Linseed Oil" an adulterated article, with the above information at hand, will be vigorously dealt with.

Sample No.	Inspectors' Number.	Linseed Oil.	Manufacturer or Jobber.	Address.	Conclusion.
23715	V-299	Bolled.....	Southern States Turpentine Co.....	Cleveland, O.....	Contains a petroleum product.
24006	S-547	Raw.....	Southern States Turpentine Co.....	Cleveland, O.....	Contains a petroleum product.
24270	U-306	Raw.....	Southern States Turpentine Co.....	Cleveland, O.....	Contains a petroleum product.
23802	S-526	Bolled.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
23803	S-527	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
23804	S-528	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
24230	S-558	Bolled.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
24231	S-559	Bolled.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
24232	S-560	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
24233	S-561	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
25096	U-310	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
24954	U-307	Raw.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
25097	U-311	Bolled.....	National Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
23943	X-335	Raw.....	Garfield Paint Co.....	Cleveland, O.....	Contains a petroleum product.
23392	I-1463	Am. Brand.....	American Linseed Oil Co.....	Cleveland, O.....	Does not comply with standard for Linseed Oil.
24128	S-551	Raw.....	American Linseed Oil Co.....	Cleveland, O.....	Does not comply with standard for Linseed Oil.
24775	I-1668	Bolled.....	American Linseed Oil Co.....	Cleveland, O.....	Contains Wood Turpentine.
24277	S-562	Bolled.....	Globe Refining Co.....	Cleveland, O.....	Contains petroleum product.
24306	S-563	Raw.....	Globe Refining Co.....	Cleveland, O.....	Contains petroleum product.
24979	U-308	Raw.....	Eastland Linseed Co.....	Cleveland, O.....	Contains petroleum product.
24774	I-1667	Raw.....	Standard Linseed Oil Co.....	Cleveland, O.....	Contains petroleum product.
26277	I-5	Raw.....	American Linseed Oil Co.....	Cleveland, O.....	Contains a petroleum product.
26355	I-6	Raw.....	Globe Oil Co.....	Cleveland, O.....	Contains a petroleum product.
26340	D-26	Raw.....	Globe Oil Co.....	Cleveland, O.....	Contains a petroleum product.
26541	F-185	Raw.....	Monitor Oil Co.....	Cleveland, O.....	Contains petroleum product.
26542	F-186	Raw.....	Monitor Oil Co.....	Cleveland, O.....	Contains petroleum product.
26543	F-187	Raw.....	Monitor Oil Co.....	Cleveland, O.....	Contains petroleum product.
26343	D-29	Raw.....	Southern States Turpentine Co.....	Cleveland, O.....	Contains petroleum product.

## MAPLE SUGAR AND ITS ADULTERATIONS.

BY J. W. HELME.

With the advent of spring comes the new crop of maple sugar and with it comes the temptation to adulterate and sell as pure maple syrup or sugar the toothsome article made from Michigan's sugar maples.

Buyers and consumers of maple sugar or syrup should take due precaution to read the labels on the containers and thus inform themselves as to whether or not they are getting a pure article. By the laws of Michigan, it is made a criminal offense to label any syrup or sugar as pure maple sugar, unless it is made exclusively from the sap of maple trees. Furthermore, any sugar or syrup offered for sale which is adulterated with cane sugar or other syrups, must be labeled with a label that shows the percentage of cane sugar and any other foreign sugar or syrup in the article. If buyers of maple sugar and syrup will observe the label, they will save themselves from being imposed upon by adulterated articles. If sugar or syrup is not labeled and is sold as maple sugar or syrup, it must be pure maple sugar or syrup or the seller will be subject to arrest under our state laws.

The attention of consumers is particularly called to the fact that a number of syrups are now on the market, which are so labeled, that while they comply with the law they deceive the consumer. An inspector of this Department sent in a one-half pint can of syrup labeled as follows: "Absolutely Pure, Pride of Michigan Syrup,—put up only by Maple Products Company, Incorporated, Grand Rapids, Michigan." This can contained a pure cane syrup with a maple flavor. Not purporting to be "Maple" syrup, the label is a legal one, but it is a very deceptive one to consumers. It sells for ten cents and from its price and the fact that it is put up by the "Maple Products Company" gives the consumer to understand that he is getting a pure maple syrup, especially as he pays for it at the rate of \$1.60 per gallon, when maple syrup can be bought for about \$1.25 per gallon. \$1.60 per gallon is too much to pay for a syrup made from cane sugar. The housewife can make it much cheaper.

We again recommend to the consumers of maple sugar and syrup to study the labels so that they may obtain a pure article, or if they want the adulterated article they may know from the label the exact amount of maple and cane sugar that is carried in the article. Above all unless the package is labeled as containing maple syrup, do not buy it for that, as it probably contains no maple in it whatever.

## SOMETHING ABOUT STOCK AND EGG TONICS.

BY J. W. HELME.

With the opening of spring and the coming of the first robin, the old hen begins to think about raising offspring the coming season. About this time the agricultural papers of the country blossom out with advertisements of various egg tonics to make the old hen perform her duty to the community and her posterity.

One of the most extensively advertised is Dr. Hess' Poultry Panacea. Mark Twain once said,—“That the secret for a successful candidacy to office was to confess all your crimes before you started in,—then there would be no exposures during the campaign.” Dr. Hess has utilized this idea and he wants no exposures of his poultry panacea, so he gives the constituents of it in his advertisement. The names of the constituents given in the ad are Potassium Nitrate, which is the chemical name for Salt Petre, Sodium Chloride, which is the high tone name for common salt, Carbonate of Lime, which is the respectable cognomen of chalk or ground oyster shells, Iron Sulphate, which is the technical name for copperas, Iron (Red Oxide), which is the scientific name of iron rust which is sold in the form of common mineral paints for about one cent per pound, Hyposulphite of Soda, a cheap drug much used by photographers and Nux Vomica, a form of strychnine used in medicine as a tonic in very small quantities.

The advertisement says that a mixture of these elements fed to the hen “tones up the dormant egg organs and takes the hens out of the loafer class.” Of course if this mixture does this, it fills a long felt want, for the hen is a contrary cuss, who insists on laying eggs when they are cheap and plenty and restricting the supply when they are high priced and scarce, and any mixture that will make the hen do her duty is certainly a public benefaction. An analysis by this Department shows that Dr. Hess has correctly stated the constituents of his hen tonic. The following are the proportions which Dr. Hess fails to give in his ad:

Moisture 7.5%, Ground Cereal 33.0%, Limestone 20.0%, Salt 14.0%, Saltpetre 8.0%, Copperas 4.0%, Hyposulphite of Soda 4.5%, Iron Oxide 6.0%, Quassia 3.0% and Nux Vomica Trace.

The weight of a package is  $1\frac{1}{2}$  pounds. The cost of the materials therein is about one cent and Dr. Hess charges 24 cents for mixing them up and advertising them. He sells a package at an even quarter. The writer is somewhat skeptical that any mixture of drugs will make the old hen lay eggs when she doesn't want to, but if any citizen of Michigan is curious to try the same let him mix his own egg tonic. The following formula will give him practically the same thing that Dr. Hess claims will reform the non-laying hen. He can make 100 pounds of it for \$1.50:

Ground cereal feed made out of any grains or mixture 41 lbs.,  
Limestone in the form of chalk or ground oyster shells 20 lbs.,



Salt 14 lbs., Saltpetre 8 lbs., Copperas 4 lbs., Hyposulphite of Soda  $4\frac{1}{2}$  lbs., Iron Oxide 6 lbs., Quassia 3 lbs. The materials should all be ground fine and mixed together.

Dr. Hess also advertises a stock tonic for larger stock on the farm. A two pound package of this sells for \$.25. A similar food can be made by the farmer for \$1.50 for 100 pounds as follows:

Ground grain 35 lbs., Saltpetre  $3\frac{1}{2}$  lbs., Copperas 3 lbs., Epsom Salts 5 lbs., Glauber Salts  $2\frac{1}{2}$  lbs., Charcoal 6 lbs., Fenu-greek 2 lbs., Quassia 2 lbs.

We would suggest to the farmers of Michigan that if they insist on feeding stock tonics and egg foods, that they make their own. They will save about nine-tenths of what they would pay for them if they bought them at retail, and they will have just as good results.

### HINTS TO CONDENSED MILK USERS.

BY J. W. HELME.

One of the greatest triumphs of the age is the successful evaporation and condensing of milk so that wherever man journeys, whether in the poles or in the tropics, the lacteal fluid of the cow can always be procured.

It is unfortunate, however, that some manufacturers of condensed milk have been so extravagant in the claims of their product as to seriously affect human life. Most manufacturers give on their cans a formula for extending their milk with water which sometimes makes it appear to be cheaper than the natural product.

Ordinary milk from the average cow contains about 12% total solids of which  $3\frac{1}{2}$ % is butter fat and the balance casein, albumen and milk sugar. This Department purchased several cans of milk on the open market and diluted the same with water until the solution equaled normal milk, having a 3% butter fat content which is the legal standard in Michigan. Such milk was found to cost as follows per quart for the following brands: XXXX, ten cents per quart; Van Camp's, Pet and Premier brands, seven and one-half cents per quart; Nu-Way, seven cents per quart; Leader, ten cents per quart, and Eagle brand, twelve cents per quart. All of these milks before dilution contained less than 10% butter fat, while the legal standard for commercial cream is 18%.

Condensed milks are therefore rather dearer than ordinary milk in most cities. It is the convenience, not the cheapness of condensed milk that should appeal to the consumer. The directions for infant feeding on some of these cans are very misleading. Take the Eagle brand, one of the best known to the trade. It gives on the can directions for infant feeding as follows: One month old dilute 1-14. This would give the baby milk containing about  $6\frac{1}{2}$ % total solids which would have in it less than 1% (.82) butter fat. Normal human milk and cow's milk are about the same, 12% total solids with  $3\frac{1}{2}$ % butter fat. Is not a milk containing less than 1% butter fat too thin for a growing babe? Further directions on the can are dilute 1-12 for second month. This

would give a butter fat of less than 1% (.93). The third month a dilution of 1—10 is recommended. This gives 1.10% butter fat, less than one-third of normal milk. For a babe 10—12 months old a dilution of 1—6 is recommended. Even this only gives a butter fat content of 1¾%, about half that of normal milk.

We believe that these dilutions are much too thin for babies. Representative Whelan has introduced a bill in the Legislature which has passed the House and is now pending in the Senate requiring all condensed milk to be labeled on the can with a formula that when extended, will be equal to legal standard milk. When this \*bill is passed every consumer can intelligently use condensed milk.

### MORE ABOUT EGG SUBSTITUTES.

BY J. W. HELME.

Recently this Department issued a bulletin showing the composition of a certain "Egg Substitute" to be baking powder, starch and analine dye. Since that time, the Department has asked several housewives as to the efficacy of such a substitute. These ladies say that it is a common practice of housewives in the making of cakes or custard pies, in the case of scarcity of eggs, starch is added. While not being equal to eggs, starch has a tendency to lighten up the cake or the pie. It is upon this old and well known principle that housewives have practiced for years that the so-called egg substitutes are being placed on the market.

One of these substitutes, a sample of which was sent from Bay City, is named "Egg Save." On analysis, this substitute was found to contain about 80% starch, 2% casein and 18% water, colored with a yellow coal tar dye.

Another egg substitute called "Soluble Food Product" submitted from Detroit for analysis, was found to be a mixture of 79% starch, 16% casein and 5% water, colored with a coal tar dye. Casein is the curd of milk which has been dried and prepared for food use. Whether this addition is of any value we are unable to say, but the large percentage of starch found in all of these compounds shows that the egg substitute people are simply utilizing the old housewives plan of using starch instead of eggs and by advertising the mixture as an egg substitute they are able to sell the consumer starch at a high price.

\* The bill mentioned above is now a law.

## A CATARRH "REMEDY."

BY J. W. HELME.

Next to Consumption cures, Catarrh cures have been a most profitable form of getting good money out of a confiding public.

An employe of this Department, having successfully survived two Consumption cures, began to feel down in the mouth or rather in the nose, especially after reading a weird advertisement of T. Gorham famous Catarrh remedy made at Battle Creek, Michigan. After answering the ad, our employe waited for the usual results that happened as usual. The first letter offered him a month's treatment for \$5.00. Four letters followed in which the price of the remedy was successively reduced to \$3.00 cash and \$2.00 credit, and finally to \$2.50 cash at which bargain counter price our chemist invested the state's money.

The remedy consisted of three 6 ounce bottles of brownish red liquid for internal use and an ounce tin of "Antiseptic Balm" to swab out his smeller. Analysis showed that the internal remedy consisted of 8% Alcohol, 25% Sugar, 67% Water and a trace each of Bromide of Soda and Iodide of Potash. The Antiseptic Balm is just ordinary vaseline, containing a small amount of menthol and perfumed with oil of wintergreen.

## A GALLON OF CATARRH CURE FOR 55c.

We will let physicians and the reader determine whether a weak toddy of sugar, alcohol and water flavored with a trace of drugs is a good remedy for Catarrh. If you want to take it why pay at the rate of \$35.00 a gallon for it when you can make a gallon of it for 55 cents as follows:

Mix water 5 pints, alcohol 12 ounces, sugar  $1\frac{1}{2}$  lbs., Potassium Iodide 5 grains and Bromide of Potash 5 grains; flavor with a few drops of wintergreen.

If you wish to grease your proboscis with "Antiseptic Balm" you can do so at a cost of six cents as follows: Add to one ounce of melted vaseline one-half dramme of menthol, stir and add a few drops of oil of wintergreen. Inquiry by this Department at Battle Creek establishes the fact that Gorham is not a physician and has no physician connected with his business. Bankers there say he is a "very desirable customer." He certainly ought to be as he is engaged in a business that pays 3,000 per cent profit.

## ANOTHER CONSUMPTION CURE.

BY J. W. HELME.

One of the largest advertisers in certain Detroit papers during the past month is a consumption cure called "Nature's Creation." We are assured through the ads that Nature's Creation "conquers consumption and asthma." "Nature's Creation" has a long and vivid career. The principal owner of this dope is a woman whom we are now informed lives in Cleveland. She was originally a fortune teller in Chicago where the formula was "revealed" to her. It was revealed to her as a cure for syphilis but as the field was more inviting for tuberculosis it was changed to a consumption cure at \$5.00 per bottle. Below we show how the same amount can be made for 25c.

A company was organized to promote it and one Geo. W. Campbell became the angel. The woman claimed the high cost of the drugs was such that she was to draw ten cents per ounce from the Company for the rare drugs furnished. Campbell afterward found he was fooled in this so he has sued the Creator of Nature's Creation for \$22,000, being the difference between the ten cents an ounce she drew and the two cents an ounce actual cost.

The Drug Analyst of this Department secured a sample of the medicine and all the literature from the Detroit agency. A pamphlet contained a large number of testimonials of cures. To the letters of inquiry of this Department, twenty-three of these testimonials failed to reply. The principal testimonial was from Miss Agnes Bower who claimed she had had an "advanced stage of tuberculosis" while in the Howell Michigan Sanitarium, but was cured by Nature's Creation after she left the hospital.

Letters from Miss Agnes Bower and Dr. Pierce of the State Tuberculosis Sanitarium reveal the facts that her entrance record shows that she was in the incipient stage and therefore a desirable patient, that all patients are received on thirty days' trial and that she was an "arrested" case upon leaving. We quote directly from a letter received from Dr. Pierce:

"After spending a year at the Michigan State Sanitarium, Howell, Mich., Miss Agnes Bower was discharged in July, 1910, as a well arrested case. She had no temperature. The bacilli had entirely disappeared from her sputum and there was only a slight cough. Her physical condition was such that under ordinary circumstances she would have grown stronger and become as near cured as any case of tuberculosis can be."

Mr. Matthew Frank of North Detroit, RFD. No. 1, told an inspector of this Department that he had taken ten bottles at \$5.00 per bottle but had received no benefit. One of our inspectors procured a sample of Nature's Creation at the Detroit office. Upon examination in the Department Laboratory, the sample of Nature's Creation was found to be a reddish brown liquid possessing a sarsaparilla like odor and a licorice-like taste. Qualitative analysis indicated the presence of alcohol, potassium iodide, calcium phosphate, sodium sulphate and the ab-

sence of creosote, mercury, chloroform and potent alkaloids. Quantitative determination showed the presence of about 6% of alcohol, 7.4% potassium iodide and 6% vegetable extractives. The product is essentially therefore a weak alcoholic solution of potassium iodide and vegetable extracts.

To make a pint of medicine which we think would be similar and equally effective as this product, add to ten ounces of water one ounce of potassium iodide and five ounces of compound fluid extract of sarsaparilla. This will not "conquer consumption and asthma" but it will do so just as much as Nature's Creation.

One of the worst features of this situation was disclosed at one of the small cities of the state a few days ago. A man came to the head of this Department and urged him to expose "Nature's Creation." He said he had a son in the advanced stage of tuberculosis and that the agent of this so-called cure was constantly pestering the son and pointed out the inevitable end unless he bought "Nature's Creation." The father believing it to be a fraud refused to purchase, much to the disappointment of the afflicted one who had read the wondrous testimonials of cures with all that hope of every sufferer from this disease, who will grasp at every straw.

## A FEW HINTS ON PAINTING.

BY J. W. HELME.

One of the few bills urged by this Department that failed of passage in the last legislature was the Pure Paint Bill. It was introduced by Senator McNaughton and passed the Senate by a practically unanimous vote. In the House it was referred to the Committee on State Affairs, and in spite of the pleas of Senator McNaughton and the head of this Department the bill was not reported out. This action is attributed to the opposition of certain manufacturers of mixed paints. The bill simply provided that the manufacturers of mixed paints should state upon the label on the can the ingredients composing the same,—not the proportions, but simply the names of the ingredients.

First class paint is made from white lead or zinc oxide, mixed with Linseed Oil, turpentine or japan. These five ingredients are practically all that are used in first class paints. Much paint is adulterated by using crude petroleum and cheap pigments and it was only natural that the manufacturers of such paints should oppose placing on the label the names of such ingredients. The necessity of a pure paint law is beyond question. The failure of its passage should stimulate the consumer to mix his own paints. No better paint can be produced than that made by mixing pure ground white lead with pure linseed oil. Such a paint is not only better than most mixed paints but it is cheaper.

Local merchants in the state sell pure white lead for 7½ cents per pound and pure boiled linseed oil can be obtained at retail for 65 cents a gallon. One hundred pounds of white lead mixed with six gallons of linseed oil will make eight gallons of paint suitable for first coat. This mixture would cost at retail \$11.40 or at the rate of \$1.42 per gallon.

One gallon of oil less should be used for second coat. Compare this price of \$1.42 per gallon with the price charged by Chicago mail order houses for their mixed paints. One of the large mail order houses charges \$1.55 per gallon for mixed paint ready for use, another charges \$1.45 per gallon; to this should be added the freight rate from Chicago. It will thus be seen that the consumer can buy his materials of the local merchant and mix them himself at a less cost than he can buy of Chicago mail order houses and probably get a better paint. Several consumers could join together and by buying a barrel of linseed oil get it of their local dealer for about 10 cents a gallon less than the price quoted above.

This Department will furnish a bulletin showing the names of manufacturers who make pure linseed oil. A white lead paint can be made any shade of slate color by the addition of lamp black, or any shade of cream or yellow by the addition of chrome yellow. If it is desired to paint the barn red, use six pounds of dry Venetian or mineral red to each gallon of oil. The Venetian red can be bought for about a cent and one-half per pound, which would make the barn paint cost about 70 cents a gallon as against 90 cents and 74 cents charged by Chicago mail order houses. Until the manufacturers of mixed paints are willing to consent to the passage of a paint law whereby the ingredients contained in their paints shall be stated on the label, the safest way for the Michigan consumer is to buy pure white lead and linseed oil and mix his own paints.

## CANNING FRUITS AND VEGETABLES.

BY J. W. HELME.

The prospect of a large crop of fruits and vegetables in Michigan during the coming season will stimulate the busy housewife to get the empty cans from down cellar and refill them with Michigan's choicest products. Here are a few hints for successful canning. Decomposition and fermentation of fruit and vegetable products is caused by certain germs or bacteria. The process of canning is simply the destruction of these germs by heat. In canning, the empty cans, covers and rubbers should be thoroughly sterilized by the application of boiling water, then the fruit or vegetables should be placed therein and thoroughly cooked or steamed to destroy any germs in the fruit product and then hermetically sealed to prevent the entrance of any live germs. Some bacteria are more tenacious of life than others and this is particularly so with corn and peas. Vegetables of this character should be cooked for at least four hours to insure the extermination of all bacteria that might cause "working" in the can.

Besides heat there are certain drugs and chemicals that will destroy these germs. These are placed upon the market and sold as canning compounds. The most widely known is sold under the name of "Mrs. Price's Canning Compound" manufactured by the Price Compound Company of Minneapolis. An ounce package sells for ten cents. An analysis of this compound by this Department shows it to consist of

Boric Acid 95%, Salt  $4\frac{1}{2}\%$  and Benzoate of Soda  $\frac{1}{2}$  of 1%. The use of Boric Acid, the principal ingredient of this compound, in food products, is absolutely prohibited by the Federal Government and all the state governments because it is injurious to health. Its use is not necessary even in the canning of corn. Long continued heat will destroy any germ without the use of chemicals. However, if any of the ladies wish to use "Mrs. Price's Compound" don't buy it for \$1.60 per pound when you can make a pound for 17 cents as follows: Go to any drug store and get 15 ounces of Boric Acid, price 15 cents;  $\frac{1}{4}$  ounce of Benzoate of Soda price two cents and mix both with an ounce of common salt and you will have a pound of Mrs. Price's Canning Compound. Preservatives in food stuffs are absolutely unnecessary. The best canning companies in the country do not use them. With a good quality of fruit and vegetables and plenty of heat no drug preservatives are necessary. Don't embalm your food stuffs.

### SWAT THE ROOSTER.

BY J. W. HELME.

With the season of hot weather, comes also the season of rotten eggs. The food laws of Michigan do not permit the sale of rotten eggs any more than they permit the sale of rotten meat or vegetables. Persons who sell rotten eggs are just as amenable to the food laws of the state as persons who sell other decayed food. From its construction, however, decay in the egg is not so easily discovered as decay in other food stuffs.

### CAUSE OF ROTTEN EGGS.

Why does an egg rot? It is because it is a fertile egg. Eggs that are not fertile do not rot. A hen can set three weeks on infertile eggs and every one at the end of that time will appear like fresh eggs. Infertile eggs will dry up but they will not rot.

What causes a fertile egg to rot? The fertile egg has in it the germ of life in a dormant state. When the temperature of that egg is raised above 95 degrees, incubation starts and the germ proceeds to take on life. If the temperature of that egg afterwards falls below 95 degrees, the germ is chilled and dies. It becomes a dead chicken in embryo. Putrefactive processes set in, or, in common terms, the eggs rot. One good hot day in summer will start thousands of eggs to incubation. Unless consumed within a short time these eggs will rot. A setting hen twelve hours on the eggs will do the same. This is why we have rotten eggs in hot weather. In the spring the days are not warm enough to start incubation.

### PREVENTION OF ROTTEN EGGS.

When we remember that only fertile eggs rot, the remedy for rotten eggs is simple. Produce none but infertile eggs during the hot months. This can be easily accomplished by removing the rooster from the flock.

After the middle of June the hatching season is past. The old rooster is of no further utility in the flock. Then is the time to swat the old rooster. It is an economic waste to feed him further. He will bring a higher price than at any other time. Make chicken pie of him or sell him to the summer resorter. Any way swat him. The little chicks will produce roosters for the next hatching season. Moreover the old hen, having no males with which to flirt and waste her time on, will put in all her time and energy in egg production. She will produce more eggs without Mr. Rooster than with, and these infertile eggs will not rot. To our poultry keeping friends let us again say with emphasis as soon as the hatching season is over "SWAT THE ROOSTER." It may save you a fine and costs. It will likewise have a great moral effect in the prevention of profanity, which occurs when a rotten egg blows up. It will be especially appreciated by stock companies in country towns. Remember it is the old rooster that produces all the rotten eggs.

### A POINTER FOR THE LADIES.

BY J. W. HELME.

From time immemorial the daughters of Eve have tried to make their faces attractive to the Sons of Adam. Some have attributed this to the innate vanity of women but it would seem that it comes largely from woman's desire to please her lord and master. This laudable desire, the desire of every lady to present an attractive appearance, has been productive of all sorts of face lotions and cosmetics guaranteed to produce the most marvelous results at a good stiff price. One of these under the name of Epp-o-tone is manufactured at Detroit. It consists of a four ounce package of a white powder which retails for fifty cents. This is to be dissolved in a pint of hot water, to which is added after cooling Rose Water and Cologne Spirits. The manufacturer of Epp-o-tone praises up his remedy in the following language:

"Users of 'Epp-o-tone' have no further need of powder and rouge. In fact, many of our customers when dressing for party or ball, use no powder at all on the face, arms, or shoulders, but instead, use 'Epp-o-tone' which gives a soft beautiful tint to the skin and completely eliminates any shine due to soap. They need have no fear of powder rubbing off on their partner's coat during a dance."

The manufacturer says "a few weeks use will do wonders for the skin." A long and strenuous career in politics has given the head of this Department a pretty tough hide, too tough even for Epp-o-tone, but if any of the sisters want to try it, we will give them a pointer how to get it at less than one-tenth of the price asked. An analysis by this Department shows Epp-o-tone powder to be composed of 80% Epsom Salts and 20% Borax. A pound of Epp-o-tone powder which retails for \$2.00 can be made for 15 cents as follows:

Take 13 ounces of Epsom Salts and 3 ounces of Borax. Dissolve this in 2 quarts of hot (not boiling) water and strain through a fine cloth. When cool, to each pint of the solution add 2 ounces of Rose Water



and 1 ounce of Cologne Spirits. After washing the skin thoroughly apply the lotion and rub in with the bare hands only.

We don't know whether this lotion will do all the manufacturer claims for it or not. The manufacturer says "you cannot use Epp-o-tone and expect it to give you a beautiful complexion in two weeks. The formula given above ought to last six months and if at the end of that time the ladies of Michigan shall present more attractive complexions to their husbands and brothers, and the other girl's brother, through the use of this formula, the State Dairy and Food Department will not have existed in vain.

### A CURE FOR STOMACH TROUBLES.

BY J. W. HELME.

Reader did you ever have a real live stomach ache? If not you have probably heard the baby have one. On such occasion when a man's stomach is at war with his whole system and he in turn wants to have a scrap with his whole family, and every one else that happens along, wouldn't a dollar look to be a good investment if it would quell the disturbance, both internal and external?

Banking on this weakness of human nature, and that particular part of the human anatomy known as the stomach, one George H. Mayr of Chicago is extensively advertising in Michigan his "Wonderful Stomach Remedy." Mr. Mayr is not at all modest in the claims for his remedy:

He says it is—"for all stomach, liver and intestinal trouble, gastritis, indigestion, dyspepsia, pressure of gas around the heart, sour stomach, distress after eating, nervousness, dizziness, fainting spells, sick headache, constipation, congested and torpid liver, yellow jaundice, appendicitis, gall stones, etc. It acts like magic in the most chronic case of stomach, liver and intestinal ailments, appendicitis and symptoms of gall stones."

As a claim agent Mayr should be attached to one of the National Political Committees. What is this wonderful remedy that retails for \$1.00 a dose? A sample was purchased from one of the city drug stores and analyzed with the following results: The sample was found to consist of two one ounce paper boxes labeled 1 and 2 and a six ounce bottle of oil. The patient is directed to take the contents of Box No. 1 at 3 p. m., the contents of the six ounce bottle at bed time and the contents of Box No. 2 the next morning. Box No. 1 was analyzed and found to consist essentially of effervescent Epsom Salts disguised with a little compound licorice powder. The six ounce bottle was found to be essentially olive oil disguised by being flavored with oil of Anise. Box No. 2 consisted of Rochelle Salts disguised with a small quantity of licorice powder.

We do not know if this product will cure anything or not, but if you are troubled with one of the above ailments and desire to try this remedy don't spend a dollar of your hard earned money but proceed as follows:

"At 3 p. m. some afternoon take a tablespoon of Epsom Salts, that night drink six ounces of olive oil and next morning take a dose of Rochelle Salts."

The "ads" say that after taking this medicine you will forget you ever had a stomach. We are inclined to think there is some truth in their statement. But why pay a dollar for three doses of physic when you can buy the same for about ten cents.

## IRONING OUT THE WRINKLES.

BY J. W. HELME.

Old Father Time is bound to get most of us and as a general rule the male species seem to accept the inevitable with resignation, but the ladies are loth to give up their good looks to the ravages of time and this spirit has been capitalized by many business enterprizes in the sale of various remedies to restore faded complexions, gray hair and remove the hated wrinkles of age. One of the latest schemes of the patent medicine beautifier is to place advertisements in newspapers ostensibly edited by celebrated beauties, giving simple "home made" remedies for beauty lotions. The remedy recommends some sort of merchandise to be purchased at the drug store, which is only a proprietary medicine composed of a few simple ingredients under a "hifalutin" name. Here is a sample of fine work on the part of the advertiser. Under the heading "Home receipt for removing wrinkles" the Woman's National Journal prints the following:

"Few women know what to do to effectually rid themselves of wrinkles or sagginess. None of the advertised preparations are satisfactory and most of them are very expensive. But a very simple and harmless home remedy, which any woman can make, will work wonders where all the patent preparations fail. Buy an ounce of powdered Saxolite at any drug store. Dissolve the whole ounce in a half pint of witch hazel and use it as a wash lotion. The results are practically instantaneous. Marked improvement is noticed immediately after the very first trial. Wrinkles and sagging are corrected and the face feels so refreshed and smug like."

An employe of this Department purchased a package of "Saxolite." It consisted of an ounce of white powder which retailed for seventy-five cents. On analysis it was found to consist of 40% Epsom Salts and 60% Alum. You can make \$24.00 worth of this preparation at a cost of twenty cents by mixing a pound each of powdered alum and Epsom Salts. The objection to the use of it is that after its use it will probably leave the skin in a worse condition than before. Right here we wish to suggest to the proprietors of Saxolite that, unlike most preparations of this kind, they seem to lack the usual "testimonials." This Department hates to see them depart from the "good old way" in pushing proprietary medicines so we submit the following model "testimonial" which they are permitted to use if they so desire:

Congo, East Africa, Feb. 29th, 1913.

"Dearborn Supply Co., Chicago, Ill.

I wish to tell the world what your wonderful preparation "Saxolite" has done for me. Previous to using your invaluable preparation my skin was covered with large wrinkles. My Mother had the same defect, so you see it is hereditary. In spite of this, after using 77 boxes of your matchless remedy, I find my skin as smooth as a confidence man and smug as a professional politician. I cannot praise your wonderful invention too extravagantly.

Yours for humanity,  
Miss A. Rhinoceros.

P. S.—Have you any remedy to erase scars in the skin caused by bullets from the gun of that matchless hunter that has recently been hunting editors in Northern Michigan."

If the above testimonial won't catch the suckers, we dont know what will.

### "CURE" UP YOUR RHEUMATISM.

BY J. W. HELME.

The recent dainy weather has made our Drug Analyst feel Rheumatic and in looking for relief he bumped against a Rheumatic Cure whose headquarters are at Jackson, Michigan. Magic Foot Drafts are made by the Magic Foot Draft Company. Our employe got a pair for one dollar. The Company recommends that five dollars be sent for six pairs in order to insure a cure. Each pair is to be worn a week.

A big sheet of testimonials of cures accompanied the drafts. Most of them were of the vintage of 1907, which must have been a rheumatic year. The drafts consist of a piece of thin oil cloth 3 x 4 inches, with some adhesive around the edges like pitch to make them stick. In the center is daubed a mixture of pine tar and powdered poke root.

You first wash your feet, (a most commendable proceeding which this Department strongly endorses) then you slap a foot draft on the sole of each foot and wear your stockings over the draft for a week. The literature explains that the blood takes the tar up through the soles of your feet and sends it through the body to chase out the Rheumatism. You wear this combination for a week. Then wash your feet and repeat.

The head of this Department is not a Doctor and he doesn't know whether tar and poke root applied to the soles of the feet will poke the Rheumatism out of the system or not. The writer doctors his own cows and he knows pine tar is good for sores on the cow and poke root is a standard remedy for caked udder, but as for Rheumatism he sayeth not. If any citizen wants to try the tar foot draft, he can do it much cheaper than a dollar a draft. Get ten cents worth of poke root and ten cents

worth of pine tar and mix thoroughly. Then get five cents worth of sticky fly paper and cut into pieces  $3\frac{1}{2}$  by  $4\frac{1}{2}$  inches. Daub some of the mixture in the center of each piece of paper and slap on each foot. Wear your stockings to bed so as to keep the tar off your better half. For twenty-five cents you can make about sixteen dollars worth of Magic Foot Drafts.

N. B.—Don't forget to wash your feet.

#### INSPECTIONS—HOW REPORTED.

Inspections of creameries, cheese factories, farm dairies and city milk supply are reported in the bulletins issued by the Department. By way of explanation the following pages are reprinted from a monthly bulletin. These bulletins, containing reports of inspections as shown on the pages reprinted, will be mailed to parties applying for same.

## INSPECTION OF

Name.	Location.	Owner or manager.	Yearly milk receipts, pounds.	Milk butter, pounds.	Sanitary surroundings.
Ottawa Co., May:					
Beaver Creamery Co. ....	Beaver Dam.....	D. Bekins.....	2,000,000	80,000	Good...
Saginaw Co., May:					
Saginaw Creamery Co. ....	Saginaw.....	Hack & Burgess.....			Good...
Shiawassee Co., May:					
Henderson Butter Co. ....	Henderson.....	Winsor Boeve.....		68,100	Good...
Washtenaw Co., May:					
Salem Milk Depot.....	Salem.....	Detroit Creamery Co. ....			Good...
Wayne Co., May:					
Albrich Bros. Milk Depot.....	Detroit.....	A. Albrich.....	450,000		Good...
Borke Bros. Milk Depot.....	Detroit.....	Borke Bros.....	335,000		Good...
H. Gordon & Son Creamery.....	Detroit.....	H. Gordon.....			Fair...
P. A. Nash Creamery.....	Plymouth.....	P. A. Nash.....		11,560	Fair...
Plymouth Milk Depot.....	Plymouth.....	Detroit Creamery Co. ....			Fair...
J. W. Raleigh Milk Depot.....	Detroit.....	J. W. Raleigh.....		200,618	Fair...
John Schlaff Milk Depot.....	Wallaceville.....	John Schlaff.....	1,200,719		Fair...
Spencer & Howes Creamery.....	Detroit.....	Spencer & Howes.....		500,000	Fair...
A. J. Towar Creamery.....	Detroit.....	A. J. Towar.....			Fair...
W. J. Wildern Milk Depot.....	Detroit.....	W. J. Wildern.....	365,000		Fair...
J. H. Wilson & Son Creamery.....	Detroit.....	J. H. Wilson.....	5,040,318		Good...
Allegan Co., June:					
Trowbridge Skimming Station.....	Trowbridge.....	Gobleville Cre. Co.....			Fair...
Clinton Co., June:					
Fowler Creamery Co. ....	Fowler.....	Geller & Edinger.....		133,850	Good...
Delta Co., June:					
Bark River Creamery.....	Bark River.....	Philip Labre.....			Poor...
Garden Creamery Co. ....	Garden.....	Jas. Deswarte.....		14,399	Good...
Ionia Co., June:					
Ionia Creamery Co. ....	Ionia.....	Austin & Darling.....		80,000	Good...
Pewamo Creamery Co. ....	Pewamo.....	J. H. Pennington.....		50,000	Good...
Kalamasoo Co., June:					
Alamo Valley Creamery.....	Alamo.....	H. M. Walker.....	1,225,000		Fair...
Dairymen's Milk Co. ....	Kalamasoo.....	W. J. Kendall.....	2,498,924	63,640	Good...
Kalamasoo Creamery Co. ....	Kalamasoo.....	Kalamasoo Cre. Co.....	2,137,268		Good...
Michigan Butter Co. ....	Kalamasoo.....	H. Weeks.....		178,207½	Good...
Lapeer Co., June:					
Almont Creamery.....	Almont.....	F. A. Chevie.....		93,618	Good...
Macomb Co., June:					
Disco Skimming Station.....	Disco.....	Utica Coop. Cre. Co.....			Good...
Gata Creamery Co. ....	Mt. Clemens.....	Gata Creamery Co.....	2,497,314	63,214	Good...
Memphis Cream Station.....	Memphis.....	Pt. Huron Cre. Co.....			Good...
Mt. Clemens Skimming Station.....	Mt. Clemens.....	Detroit Creamery Co. ....			Fair...
Muttonville Skimming Station.....	Muttonville.....	Detroit Creamery Co. ....			Fair...
New Haven Creamery Co. ....	New Haven.....	Detroit Creamery Co. ....	2,143,016	106,518	Good...
Pt. Huron Cry. Co's Cream Sta.....	Richmond.....	Pt. Huron Cre. Co.....			Fair...
Ray Center Skimming Sta.....	Ray Center.....	Detroit Creamery Co. ....			Fair...
Richmond Creamery.....	Richmond.....	Wm. Zentgraf.....		120,218	Fair...
Spencer & Howe Cream Station.....	Richmond.....	Spencer & Howe.....			Fair...

## CREAMERIES.

Condition of apparatus.											Quality of milk.	Score of butter.
Sample bottles.	Pumps.	Heater.	Separator.	Pasteurizer.	Vats.	Skim milk tank.	Piping.	Churn.	Engine.	Boiler.		
Good...	Good...	Good...	Good...		Fine...	Good...	Good...	Poor...	Good...	Good...	Fair...	92
New...	New...		Good...	Good...	Fine...		Good...	Good...	Good...	Good...		91
Fine...	Good...				Fine...		Good...	Fair...	Good...	Good...		92
	Clean...			Clean...	Good...		Good...			Good...	Good...	
									Good...	Fair...		
Clean...	Clean...	Clean...	Clean...		Fair Good...	Clean...	Fair Fair...	Clean...	Fair Good...	Good Good...	Fair Fair...	90
Clean Clean...	Clean Clean...				Clean Clean...		Fair Fair...	Clean Clean...	Good Good...	Good Good...		93
	Clean...				Clean...		Good...		Good...	Good...	Fair Fair...	91
Clean...	Clean...	Clean...	Clean...		Clean...	Clean...	Fair...		Good...	Good...	Good...	
Good...	Good...				Good...		Good...	Fair...	Good...	Good...		91
Good Good...				Good...	Good...			Good...	Good Good...	Good Good...		
Good Good...	Fair...				Good Good...		Good Fair...	Good Fair...	Good Good...	Good Fair...		91
Clean...	Clean...	Clean...	Clean...		Good...	Clean...	Fair...		Good...	Good...	Fair...	
Clean...	Clean...	Clean...	Clean...		Clean...	Clean...	Good...	Clean...	Good...	Good...	Good...	94
Clean...	Clean...	Clean...	Clean...	Clean...	Clean...		Good...		Good...	Good...	Fair...	
Clean...	Clean...				Clean...		Fair...	Clean...	Good...	Good...	Good...	93
Clean...	Clean...			Clean...	Clean...		Good...	Clean...	Good...	Good...		91
Clean...	Clean...	Clean...	Clean...	Good...	Clean...	Clean...	Fair...	Clean...	Good...	Good...	Good...	93
Clean...	Clean...	Clean...	Clean...	Clean...	Clean...	Clean...	Fair...		Good...	Good...	Fair...	
Clean...	Clean...	Clean...	Clean...	Clean...	Clean...	Clean...	Good...	Clean...	Good...	Good...	Good...	93
Clean...	Clean...	Clean...	Clean...		Clean...		Fair...		Good...	Good...	Good...	
Clean...	Clean...				Clean...		Fair...	Clean...	Good...	Good...		91

## INSPECTION OF

Name.	Location.	Owner or manager.	Yearly milk receipts, pounds.	Make cheese, pounds.	Style.
Clinton Co., May:					
Eureka Cheese Co. ....	Eureka .....	John Coverdale .....	.....	.....	Soft Mich. and Mich. Chedd.
Eureka Cheese Co. (Duplain Tp.) ..	Eureka .....	John Coverdale .....	1,000,000	97,000	Mich. Chedd.
Hilledale Co., May:					
Oseo Cheese Factory .....	Oseo .....	M. M. Hinkley .....	875,000	89,614	Mich. Soft.
Prattville Cheese Factory .....	Prattville .....	Raymond & McKair .....	.....	.....	Mich. Soft.
Ransom Cheese Factory .....	Ransom .....	Waldron Cheese Co. ....	1,557,000	154,000	Mich. Soft.
Treat Cheese Factory .....	Treat Corners .....	M. M. Hinkley .....	.....	.....	Mich. Soft.
Waldron Cheese Factory .....	Waldron .....	Waldron Cheese Co. ....	870,619	88,715	Mich. Soft.
Ingham Co., May:					
Williamston Cheese Factory .....	Williamston .....	H. J. Bivins .....	280,000	28,318	Mich. Soft.
Lenawee Co., May:					
Cement City Cheese Factory .....	Cement City .....	L. G. Miller .....	.....	.....	Mich. Soft.
Lime Creek Cheese Factory .....	Lime Creek .....	F. Lester .....	680,000	67,419	Mich. Soft.
Munson Cheese Factory .....	Munson .....	F. Lester .....	675,000	69,419	Mich. Soft.
North Morenci Cheese Factory .....	N. Morenci .....	Colvin & Keenan .....	1,260,000	123,618	Mich. Soft.
Montcalm Co., June:					
Butternut Cheese Co. ....	Butternut .....	John Fitzpatrick .....	2,708,842	275,818	Soft Michigan.
Crystal Cheese Co. ....	Crystal .....	John Fitzpatrick .....	.....	.....	Soft Michigan.
Fenwick Cheese Factory .....	Fenwick .....	Bert R. Snow .....	1,186,120	119,286	Soft Michigan.
Vickeryville Cheese Co. ....	Vickeryville .....	M. C. Johnson .....	1,254,652	125,840	Soft Michigan.
Oakland Co., June:					
North Farmington Cheese Factory ..	N. Farmington .....	M. B. Armstrong .....	1,002,412	100,291	Soft Michigan.
Saginaw Co., June:					
Cass River Cheese Co. ....	Frankenmuth .....	Hubinger Brothers .....	600,000	58,000	Soft Michigan.
Tuscola Co., June:					
Stone Road Cheese Co. ....	Millington .....	Halpin Creamery Co. ....	110,000	10,000	Soft Michigan.

## CHEESE FACTORIES.

Cheesemaker.	Sanitary surroundings.	Equipment.						Quality of milk.	Starter.
		Vats.	Presses, gang.	Curd mill.	Whey tank.	Rennet test.	Boiler.		
John Coverdale.....	Good.....	2 good.....	.....	Goshlin.....	Fair.....	.....	10 H. P.	Good.....	Natural.
Bert C. Parks.....	Good.....	2 fair.....	2.....	Goshlin.....	Fair.....	.....	10 H. P.	Fair.....	Artificial.
G. C. Sones.....	Fair.....	2 clean.....	1.....	.....	Fair.....	.....	6 H. P.	Good.....	.....
F. Brightbill.....	Fair.....	2 clean.....	1.....	.....	Fair.....	.....	6 H. P.	Good.....	.....
D. B. Miller.....	Fair.....	2 clean.....	1.....	.....	Fair.....	.....	6 H. P.	Good.....	.....
M. Kims.....	Fair.....	2 clean.....	1.....	.....	Clean.....	.....	10 H. P.	Fair.....	.....
E. D. Jurdon.....	Fair.....	3 clean.....	1.....	.....	Fair.....	.....	10 H. P.	Good.....	.....
J. C. Bivins.....	Fair.....	1 clean.....	1.....	.....	Fair.....	.....	6 H. P.	Good.....	.....
L. G. Miller.....	Good.....	1 good.....	1.....	.....	Clean.....	.....	6 H. P.	Good.....	.....
F. Lester.....	Fair.....	2 clean.....	1.....	.....	Fair.....	.....	8 H. P.	Fair.....	.....
J. S. Delano.....	Bad.....	2 clean.....	1.....	.....	Bad.....	.....	6 H. P.	Good.....	.....
J. H. McCurdy.....	Fair.....	2 clean.....	1.....	.....	Fair.....	Yes.....	10 H. P.	.....	.....
John Gardham.....	Good.....	3 good.....	2.....	Yes.....	Good.....	Marshall.....	10 H. P.	Good.....	.....
Geo. Holcomb.....	Fair.....	2 good.....	1.....	Yes.....	Poor.....	No.....	15 H. P.	Fair.....	.....
Theo. Webster.....	Poor.....	2 fair.....	2.....	Yes.....	Fair.....	No.....	8 H. P.	Fair.....	Natural.
M. C. Johnson.....	Bad.....	2 fair.....	.....	Yes.....	Bad.....	No.....	.....	Fair.....	.....
B. C. Shears.....	Fair.....	2 clean.....	1.....	.....	Fair.....	.....	15 H. P.	Very good.....	.....
John Lounsbery.....	Good.....	1 good.....	1.....	.....	Good.....	.....	12 H. P.	Good.....	.....
Chas. Hustler.....	Good.....	2 good.....	1.....	.....	Good.....	.....	10 H. P.	Good.....	.....



Name.	Postoffice.	Patron of.	Total No. of cows.	No. of cows giving milk.	Daily production of milk in pounds.	Breed.
<b>Berrien Co., May:</b>						
Elmer Brown	Three Oaks	H. W. Brown	10	9		Mixed
H. W. Brown	Three Oaks	Self	10	7		Mixed
<b>Branch Co., May:</b>						
Horatio Birch	Quincy	Harry Holbrook	2	2		Mixed
Warren Boughton	Coldwater	Self	8	6		Mixed
Alfred L. Bowen	Quincy	Harry Holbrook	2	2		Mixed
Chas. D. Brott	Quincy	Harry Holbrook	10			Mixed
Byers & Barnes Bros.	Coldwater	Self	95	86		Mixed
Campbell & Angevine	Coldwater	Self	81	41		Gurn., Jerseys.
Ed. Culbert	Quincy	Harry Holbrook	5	5		Mixed
R. W. Grove	Coldwater	Snyder & Grove	16	16		Mixed
S. E. Light	Coldwater	O. G. Kellogg	36	32		Mixed
C. E. Yost	Quincy	Harry Holbrook	7	7		Mixed
R. E. Young	Coldwater	D. A. Bolster	17	16		Mixed
<b>Eaton Co., May:</b>						
J. W. Dobbins	Charlotte	Self	6	6		Mixed
C. P. Locke	Charlotte	Self	28	25		Mixed
H. Mitchell	Charlotte	J. W. Dobbins	3			Mixed
F. C. Orving	Charlotte	G. A. Snyder	5	5		Mixed
J. W. Powell	Charlotte	J. W. Dobbins	8	5		Mixed
John Sharkey	Bellevue	Self	13	13		Mixed
Sam Shingler	Charlotte	Self	8	8		Mixed
G. A. Snyder	Charlotte	Self	8	3		Mixed
L. M. Wood	Charlotte	Self	17	15		Mixed Hol.
<b>Kalamasoo Co., May:</b>						
W. S. Bartlett	Kalamasoo	Self	15	14		
John Den Blyker	Kalamasoo	Bishcp Dairy Co.	10	8		Mixed
H. E. Husted	Kalamasoo	Self	1	1		Mixed
Clarence Maxam	Kalamasoo	Bishop Dairy Co.	7	5		Mixed
<b>Ottawa Co., May:</b>						
C. Diepenhorst	Zeeland	Self	10	10		Jersey-Hols.
<b>Barry Co., June:</b>						
Chas. Turner	Crossey	Self	2	1		Mixed
<b>Cass Co., June:</b>						
Fred S. Lee	Edwardsburg	Self	5	5		Mixed
Frank Sherman	Edwardsburg	Fred S. Lee	3	3		Mixed
<b>Kalamasoo Co., June:</b>						
J. K. Flowers	Augusta	F. N. Drake	14	13		Mixed
F. S. Kenfield	Augusta		19	17		Holstein
Geo. LaForge	Yorkville		3	3		Mixed
Geo. Newkirk	Yorkville		4	4		Mixed
<b>St. Joseph Co., June:</b>						
H. C. Borrow	Three Rivers	R. M. Cauffman	15	15		Mixed
Mrs. Michael Beadle	Three Rivers	R. M. Cauffman	5	5		Mixed
Al. Kerr	Three Rivers	Central Hotel	10	8		Mixed
Aug. Vories	Three Rivers	R. M. Cauffman	5	4		Mixed

## OF DAIRIES.

Ration.	Stable.			Cows kept clean.	Water.
	Clean and sanitary.	Ventilation.	Light.		
Pasture, corn, oats .....	Yes .....	Door-windows .....	Yes .....	Medium ..	Drive well.
Pasture .....	No .....	Door-window .....	Fair .....	Medium ..	Drive well.
Pasture, hay, corn, oats .....	Medium ..	Door-window .....	Medium ..	Medium ..	Drive well.
Pasture, corn, oats, bran .....	Fair .....	Cracks-windows .....	No .....	Medium ..	Drive well.
Pasture, corn, oats .....	No .....	Door-open stairway .....	Medium ..	Medium ..	Drive well.
Pasture, corn, oats .....	Fair .....	Door-window-cracks .....	Fair .....	Medium ..	Drive well.
Silage, hay, pasture, bran .....	Fair .....	Special system .....	Medium ..	Medium ..	Drive well.
Silage, hay, oats .....	Fair .....	King system .....	Yes .....	Medium ..	Drive well.
Pasture, corn, oats .....	Fair .....	Open stairway .....	Fair .....	Medium ..	Drive well.
Pasture, silage, corn, oats .....	Yes .....	Hay chute .....	Yes .....	Medium ..	Drive well.
Silage, pasture corn .....	Medium ..	Door-windows .....	Medium ..	Medium ..	Drive well.
Pasture, hay, corn, oats .....	Fair .....	Door-windows .....	No .....	Medium ..	Drive well.
Pasture, corn, oats .....	Medium ..	Door-windows .....	Medium ..	Medium ..	Drive well.
Pasture, hay, corn, oats .....	Yes .....	Door-windows .....	Yes .....	Medium ..	Drive well.
Pasture .....	No .....	Door-windows .....	No .....	Medium ..	Drive well.
Pasture, hay, corn, oats .....	Fair .....	Cracks .....	No .....	Medium ..	Drive well.
Pasture, hay, corn, oats .....	No .....	Cracks .....	No .....	Medium ..	Drive well.
Pasture, corn, oats .....	No .....	Door-windows .....	No .....	Medium ..	Drive well.
Pasture .....	No .....	Openings into barn .....	Fair .....	Yes .....	Drive well.
Pasture, corn, oats .....	No .....	Door-windows .....	No .....	Medium ..	Drive well.
Pasture, bran, middlings .....	No .....	Cracks-windows .....	Fair .....	Medium ..	Drive well.
Pasture .....	Fair .....	Door-windows .....	Fair .....	Medium ..	Drive well.
Pasture, hay, corn, oats .....	No .....	Door-windows .....	Medium ..	Yes .....	Drive well.
Pasture, corn, oats, bran .....	Medium ..	Door-windows .....	Medium ..	Medium ..	Drive well.
Pasture, corn, oats .....	No .....	Door-windows .....	Fair .....	Medium ..	Drive well.
Pasture, corn, oats .....	No .....	Open stairway .....	Fair .....	Medium ..	Drive well.
Ensilage, corn, oats .....	Yes .....	Natural .....	Fair .....	Yes .....	Tubular well.
Pasture, corn, oats, bran .....	Fair .....	Door-window .....	Fair .....	Yes .....	Drive well.
Pasture, corn, oats .....	Fair .....	Door-window .....	Fair .....	Medium ..	Drive well.
Corn, pasture, oats .....	No .....	Cracks-openings .....	Fair .....	Medium ..	Drive well.
Pasture, silage .....	No .....	Door-windows .....	No .....	Medium ..	Drive well.
Pasture, silage, bran, oats .....	Medium ..	Door-windows .....	Yes .....	Yes .....	Drive well.
Pasture, corn, oats .....	No .....	Door-windows .....	Yes .....	Medium ..	Drive well.
Pasture, corn, oats .....	No .....	Cracks .....	No .....	Medium ..	Drive well.
Pasture .....	Fair .....	Door-window .....	Fair .....	Medium ..	Drive well.
Pasture .....	Medium ..	Door-window .....	Fair .....	Medium ..	Drive well.
Pasture .....	No .....	Door-openings .....	No .....	Medium ..	Drive well.
Pasture .....	Fair .....	Cracks-openings .....	Fair .....	Medium ..	Drive well.

## INSPECTION OF CITY MILK SUPPLY.

Name.	Health of herd and its protection.	Cleanliness.	Construction and care of utensils.	Health of employees and manner of milking.	Handling of milk.	Total.	Sanitary surroundings.	Quality of milk.			
								Per cent butter fat.	Lactometer.	Total solids.	Solids not fat.
Bellevue, May:											
John Sharkey.....	80	67	81	76	90	394	Poor.....				
Charlotte, May:											
J. W. Dobbins.....	93	83	82	78	90	426	Medium.....				
C. P. Locke.....	79	55	75	75	85	399	Poor.....				
Sam Shingler.....	77	40	75	75	90	357	Poor.....				
L. M. Wood.....	85	80	75	75	85	400	Medium.....				
Coldwater, May:											
Warren Boughten.....	80	73	78	77	85	393	Poor.....				
Byers and Barnes Bros.....	94	84	81	78	90	427	Medium.....				
Campbell & Angevine.....	94	81	79	78	90	422	Medium.....				
R. W. Grove.....	93	85	82	78	90	428	Medium.....				
S. E. Light.....	90	82	88	78	96	434	Medium.....				
B. E. Young.....	89	76	92	76	87	420	Medium.....				
Hancock, May:											
John Blossant.....	85	75	70	80	100	410	Medium.....	3	29	10.85	7.85
James Gaspardo.....	72	70	85	85	95	407	Medium.....	3	30	10.975	7.375
John Isojarvi.....	90	95	85	85	85	440	Medium.....	4	29.5	12.3	8.3
Wm. Koppans.....	90	85	90	95	100	460	Good.....				
Yakoppo Peltoneimi.....	85	80	85	95	90	435	Medium.....	3.8	30.5	12.185	8.385
Jos. Salmn.....	85	85	90	95	95	450	Good.....				
Batisti Vitton.....	90	80	85	85	100	440	Medium.....	4	29.5	12.175	4.175
Mat Wessala.....	82	85	90	95	85	437	Medium.....				
Gerhard Weubben.....	85	80	90	90	90	425	Medium.....				
Ivan Lindgren.....	90	85	90	95	95	455	Good.....				
Houghton, May:											
Jos. O. Bruneau.....	82	75	90	90	100	437	Medium.....				
C. W. Fowler.....	90	90	90	90	100	460	Good.....				
Ed. Johnson.....	85	85	90	95	90	445	Medium.....				
Frank K. Keturi.....	77	75	90	95	90	427	Medium.....	4	32.5	12.925	8.925
John Kutschid.....	90	90	90	95	100	465	Good.....	4	31	12.55	8.55
Herman Lahti.....	85	70	90	85	95	425	Medium.....	4.6	31.5	12.395	7.795
Legris Bros.....	85	75	90	95	100	445	Medium.....	4.6	32	13.52	8.92
A. E. Marchon.....	90	85	90	90	80	435	Medium.....	5.6	31.5	14.595	8.995
John Zureher, Jr.....	90	95	90	90	100	465	Good.....	4.6	30	13.02	8.42
Kalamasoo, May:											
W. S. Bartlett.....	77	56	93	79	100	405	Medium.....				
John Den Blyker.....	91	92	78	78	88	427	Medium.....				
H. E. Husted.....	72	85	70	75	87	339	Poor.....				
Clarence Maxam.....	76	57	70	75	80	358	Poor.....				
Menominee, May:											
C. J. Cook.....	95	85	95	85	100	460	Good.....	4	31	12.55	8.55
Wm. Cort.....	85	80	85	90	90	430	Medium.....	3.8	30	12	8.25
Mrs. E. Preiser.....	90	75	90	90	100	445	Medium.....	3.8	29	11.81	8.01
H. J. Rouss.....	90	85	90	95	100	460	Good.....	3.6	30.5	11.945	8.245
H. Schumacher.....	85	85	80	90	85	425	Medium.....	4.2	31	12.79	8.59
I. Stephenson.....	100	100	90	90	100	485	Excellent.....	4	30	12.3	8.3
Quincy, May:											
Horatio Birch.....	85	75	78	75	87	400	Medium.....				
Alfred L. Bowen.....	78	69	78	75	87	387	Poor.....				
Chas. D. Brott.....	81	70	78	75	90	394	Poor.....				
Ed. Culbert.....	81	72	78	75	82	388	Poor.....				
C. E. Yost.....	78	70	73	75	82	378	Poor.....				

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**STATE ANALYST'S REPORT.**

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July 1, 1913.

Hon. James W. Helme, State Dairy & Food Commissioner, Lansing,  
Michigan:

Dear Sir—I herewith hand you the report of the work done in the Department laboratory during the fiscal year July 1st, 1912, to July 1st, 1913.

A total of 2,176 samples were analyzed and reported on. Of this number 1,515 included foods, food colors, linseed oils, preservatives, etc.; 162 were feeding stuffs and 504 were drug products. Of the 1,515 samples of food stuffs, etc., 506 or 33 $\frac{1}{3}$ % of them were classed as adulterated, misbranded or illegal. The samples which were so classed appear in the following summary and are more fully explained in the appended report. The remaining 1009 samples were found to comply with the statute and therefore appear only in the general summary. The 162 samples of feeding stuffs appear in tabulated form and is a correct statement of all analyses made in this laboratory. The 504 drug samples are fully explained under the report of the drug analyst.

In my report to the Commissioner of the Dairy & Food Department for the year 1911-1912, attention was directed to the fact that the drug samples were not published excepting in the general summary. During the latter part of the present year however, this policy was changed. Now the drug samples are treated by the Drug Analyst in a similar manner to the food samples and are reported in full. This it seems to me is a step forward, as considerable information as to the nature of the work of the laboratory can be obtained, while both the Consumer and the Merchant can get some idea of the condition of the drug business in the state.

Comparing this year's work with that of the year previous, it will be found that not as many samples were examined in 1913 as were in 1912. This I attribute to the fact that the Department inaugurated a number of special investigations that naturally required the analysis of a large number of samples; while this year, although special investigations have been carried on, they were of such a nature that they did not require the analysis of a great number of samples.

The Act establishing the Dairy and Food Department was passed in 1893 and Section 5 provided that the analysis of all samples was to be made at the Agricultural College and the Professor of Chemistry at that institution should be the State Analyst. Each sample was paid for as analyzed. Act No. 245 of the Public Acts of 1895 provided for the appointment of a State Analyst, who was also the Deputy Commissioner, at a salary of \$1,200, with no provision for assistants. Act No. 154 P. A. of 1897 made a provision for the appointment of one assistant chemist at a salary of \$1,000.00. This feature has not been changed since, with the exception that the salary was increased in 1905 to \$1,200.00 but no provision was made for the appointment of more

than one assistant chemist. This feature has remained the same for the past 16 years, although the work of the laboratory of the Department has steadily increased from year to year.

During the past year we were employing three chemists besides myself. Two of these are provided for by law, viz.: one assistant chemist and the drug analyst. The other member of the laboratory force must necessarily be employed as a clerk. Should we desire to increase our force with the increase of work that is bound to come to a progressive department no provision for an increase is made in the present law and the only way that we can employ assistant chemists is to put them on the pay roll as clerks and limit them to the usual salary that this position carries. This should be changed and I believe it urgent that at the next session of the legislature a bill be introduced amending the present law so that we may employ as many chemists, under their proper title, as the work of the laboratory permits, and that a graded salary be fixed for persons so employed. We can then start an inexperienced worker at a small salary and as he becomes more and more valuable to the Department, through his increased experience, reward him from time to time, thereby furnishing some inducement for him to devote his utmost energy and study for the benefit of the state.

My associates in the laboratory deserve commendation for their careful and painstaking efforts to keep this division of the department up to a high standard.

Assuring you of our continued interest in all matters pertaining to the enforcement of food laws, I remain,

Respectfully,  
F. L. SHANNON.  
State Analyst.

## SUMMARY OF FOODS ANALYZED.

Article.	Total.	Not found adulterated misbranded or illegal.	Found adulterated misbranded or illegal.
Baking powder.....	7	7	0
Bouillon cubes.....	1	1	0
Buckwheat flour.....	3	3	0
Butter.....	55	27	28
Candy.....	7	7	0
Canned goods.....	35	16	19
Catsup.....	7	5	2
Cereal.....	1	1	0
Cider.....	2	2	0
Cinnamon.....	2	2	0
Cocoa.....	3	3	0
Coffee.....	6	1	5
Coffee preparations.....	3	3	0
Colors.....	6	6	0
Cottonseed oil.....	1	1	0
Cream.....	4	4	0
Cream of tartar.....	2	2	0
Flavoring preparations.....	33	26	7
Flour.....	1	1	0
Honey.....	2	2	0
Horse radish.....	7	5	2
Ice cream.....	166	123	43
Jellies, jams, etc.....	16	13	3
Lard and lard compounds.....	33	13	20
Linseed oil.....	63	28	35
Maple sugar.....	3	2	1
Maple syrup.....	5	5	0
Marmalade.....	1	1	0
Meat.....	190	118	72
Milk.....	568	422	146
Mince meat.....	3	0	3
Miscellaneous.....	6	6	0
Mixed sugar.....	5	1	4
Mixed syrup.....	2	0	2
Mustard preparations.....	8	5	3
Oleomargarine.....	32	3	29
Olives.....	1	0	1
Olive oil.....	16	8	8
Oysters.....	81	44	37
Pancake flour.....	1	1	0
Pepper.....	2	1	1
Pickles.....	9	3	6
Pie filling.....	1	1	0
Pork and beans.....	1	1	0
Potatoes.....	1	1	0
Powdered sugar.....	5	5	0
Preservatives.....	20	15	5
Process butter.....	3	1	2
Relishes.....	4	4	0
Rice.....	1	1	0
Soft drinks.....	10	10	0
Soups.....	5	5	0
Sugar.....	2	2	0
Sugar butter.....	5	3	2
Syrups.....	13	8	5
Turpentine.....	6	1	5
Vinegar.....	39	29	10
Totals.....	1,515	1,009	506



## ANALYSES OF SAMPLES.

### BUTTER.

Fifty-five samples of butter were examined, 28 of them were found to be adulterated, misbranded or were sold illegally. Sample No. 25729 procured from Bessie Fitzsimmons, 168 Michigan Ave., Detroit, was procured by the inspector while waiting in line with a number of household matrons, who supposed they were buying butter. An analysis proved it to be Oleomargarine, artificially colored. The store at 168 Michigan is the old White Front Store formerly owned and operated by the notorious Hart Bros. the "Oleo Kings." The case was prosecuted and a fine collected.

Sample No. 26965 is another sample of "butter" procured from the same place about a year later under similar circumstances. This again proved to be Oleomargarine, artificially colored. Miss Fitzsimmons was again prosecuted and a fine collected. Sample No. 26287 was procured by the inspector while eating at the Hotel Otsego at Jackson. Here one pays a good price for his meals but it seems that even there Oleomargarine is on the bill of fare parading as butter. At least the patrons are not informed that they are being served with Oleo. The samples of "Tub Creamery Butter" that were being retailed in Kalamazoo, may have come through some creamery at some previous date, but at the time the inspector caused three individuals to buy some of the stuff, it was plain renovated butter. In sample No. 26569 someone was evidently trying to "put one over" by mixing butter and Oleomargarine.

No. 25326, P-532. Sample of "butter" procured from restaurant table of Chas. Peckham, Lansing. Sample is oleomargarine. No sign displayed.

No. 25327, P-533. Sample of "butter" procured from restaurant table of Chas. Peckham, Lansing. Sample is oleomargarine. No sign displayed.

No. 25581, G-842. Sample of "butter" taken from dining table of the Minneapolis restaurant, James Tampas, proprietor, Sault Ste. Marie. Sample is oleomargarine. Legal sign not displayed.

No. 25582, G-843. Sample of "butter" taken from dining table of the American restaurant, Geo. Catsapia, proprietor, Sault Ste. Marie. Sample is oleomargarine. Legal sign not displayed.

No. 25584, G-845. Sample of "butter" taken from dining table of the Boston restaurant, Geo. Michel, proprietor, Sault Ste. Marie. Sample is oleomargarine. Legal sign not displayed.

No. 25729, H-2. Sample of "butter" purchased from Bessie Fitzsimmons, 168 Michigan Ave., Detroit. Sample is oleomargarine artificially colored.

No. 26113, G-858. Sample of "butter" procured from William Stimae, Copper City. Sample is renovated butter.

No. 26150, P-640. Sample of "butter" procured from Frickey & Adams, Battle Creek. Product is renovated butter.

No. 26242, P-653. Sample of "butter" procured from the dining room of C. W. Merrill, 301 E. Franklin Ave., North Lansing. Product is oleomargarine, sign not in conspicuous place.

No. 26282, G-870. Sample of "butter" procured from William McLean (The Owl Restaurant), Ishpeming. Product is oleomargarine. No sign displayed.

No. 26287, P-655. Sample of "butter" procured from the Otsego Hotel, Jackson. Product is oleomargarine. No sign displayed.

No. 26547, U-2. Sample of "butter" procured from Keymet Bros., 18 Manchester Ave., Highland Park. Sample is oleomargarine. No sign posted and ingredients not stated.

No. 26592, U-5. Sample of "butter" procured from B. Kaplan, 229 2nd St., Detroit. Sample is oleomargarine.

No. 26755, F-35. Sample of "butter" procured from Carl Orwant, Grand Rapids. Sample is renovated butter not stamped.

No. 26801, P-691. Sample of "butter" handled by Ed. Upton, Alamo, Mich., and procured from L. Haas, Sr., Kalamazoo. Sample is renovated butter not stamped.

No. 26810, P-692. Sample of "Tub Creamery Butter" procured from W. S. Maxam, Kalamazoo. Sample is renovated butter not stamped.

No. 26811, P-693. Sample of "Tub Creamery Butter" procured from W. S. Maxam, Kalamazoo. Sample is renovated butter not stamped.

No. 26812, P-694. Sample of "Tub Creamery Butter" procured from W. S. Maxam, Kalamazoo. Sample is renovated butter not stamped.

No. 26915, G-877. Sample of "butter" procured from lunch counter at Central Hotel, Calumet. Sample is oleomargarine.

No. 26916, G-878. Sample of "butter" procured from restaurant of Wm. Chaput, Calumet. Sample is oleomargarine.

No. 26937, P-707. Sample of "butter" procured from Ira Teeters, Niles. Sample is oleomargarine.

No. 26942, P-708. Sample of "butter" procured from John Tethick, Niles. Sample is oleomargarine.

No. 26965, Y-101. Sample of "butter" procured from Miss Bessie Fitzsimmons, Detroit. Sample is oleomargarine colored with a coal-tar dye.

No. 27047, D-171. Sample of process butter procured from John LaRue, Bay City. Sample is process butter not stamped.

No. 27057, G-887. Sample of "butter" procured from Frank Ouellet, Hancock. Sample is oleomargarine.

No. 27201, D-181. Sample of "butter" procured from M. Pisnow, Bay City. Sample is oleomargarine.

No. 26569, P-673. Sample of "butter" procured from Mrs. J. A. Vanarail, Allegan. Sample is a mixture of about 40% butter and 60% oleomargarine.

No. 27156, U-8. Sample of "butter" procured from Thomas M. Faust, Detroit, Michigan. Sample is oleomargarine.

## CANNED GOODS.

Thirty-five samples of canned goods were examined; 19 of them were classed as adulterated or misbranded. During the latter part of the canning season, peas quite often became hard and dry due to over-ripening. Some factories in order to make these peas suitable for the market place them in large tanks and soak them until they become soft. The law requires them to label such peas "Soaked Goods." A number of samples herein reported consist of this class of goods; however, the manufacturer did not, for obvious reasons, so state on the label of his product. By adding copper sulphate (blue Vitrol) to a green vegetable it causes that vegetable to retain its green color. Peas and Beans are often so treated, especially those that are imported. Copper Sulphate is a poisonous substance and its use in food products cause them to be injurious to the health of the consumer.

In the canning industry one of the grades of peas is styled "Early June Peas." The grade unfortunately is one of the lower grades but it is put on the market and labeled generally in very bold type "EARLY JUNE PEAS." This grade of peas contains many hard over-ripe peas. It would seem therefore that this style of label is deceptive, as a pea that is grown in early June, as we are led to believe they were grown, is a fresh green succulent pea and not a hard and over-ripe one.

No. 24991, G-676. Sample of "Everybody Brand Peas" packed for Greenwood Packing Co., Greenwood, Ind., handled by McNeil & Higgins Co., Chicago, as jobbers and procured from Vertin Bros., Calumet. Sample is composed wholly or in part of peas dried before canning and are not labeled "Soaked or Bleached Goods." Misbranded.

No. 25028, I-1683. Sample of Mixed French Vegetables handled by Reis & Brady, New York, and procured from Michael Morris, Jackson. Sample contained copper sulphate, a substance held to be injurious to health.

No. 25271, U-321. Sample of tomatoes (canned) put up by J. Frank Lednum, Preston, Md., and handled by Ararat Grocery Co., Boston, Mass., as jobbers. Product contains an abundance of starch and is improperly labeled.

No. 25540, S-650. Sample of canned peas put up by the John Boyle Co., Baltimore, Md., handled by Grosberg & Reuter, Detroit, as jobbers and procured from Lamkin Bros., Detroit. Soaked goods not properly labeled.

No. 26135, S-705. Sample of Brillat Imported Canned Peas handled by G. & R. McMillan Co., Detroit, and procured from the store of Ed. Neumann, Broadway Market, Detroit. Colored with copper sulphate and held to be injurious to health.

No. 26188, F-1. Sample of lima beans put up by the Van Camp Packing Co., Indianapolis, Ind., and procured from the store of M. C. & E. V. Goosen, Lansing. The word "soaked" not in proper sized type. Misbranded.

No. 26260, D-15. Sample of salmon handled by C. Elliot & Co., Detroit, and procured from D. Croop, Deford. No label.

No. 26350, D-34. Sample of canned peas put up by the Pacific Pea Packing Co., Chetek, Wis., handled by Symons Bros. & Co., Saginaw and

procured from the Model Grocery, 322 Lapeer St., Saginaw. Soaked peas not labeled as such. Misbranded.

No. 26553, E-14. Sample of canned peaches procured from the New Orleans Fruit House, H. Weingarden, Prop., Flint. Not labeled.

No. 26579, D-80. Sample of Fame brand Canned Peas packed by the Franklin Canning Co., Franklin, Ind., and procured from Chas. Salburg, Bay City. Not early June peas as labeled. Misbranded.

No. 26688, E-22. Sample of canned strawberries handled by Symons Bros. Co., Saginaw, and procured from J. R. Frost, Clio. Can does not bear the name and address of packer.

No. 26789, D-122. Sample of Equity brand Canned Peas packed by the Dundas Canning Co., Dundas, Wis., handled by Reid, Murdock & Co., Chicago, and procured from Fair & Co., Brown City. Not early June peas as labeled. Misbranded.

No. 26829, K-183. Sample of "Godillot Extra fine French Peas" procured from O'Brien & Co., Detroit. Contain copper sulphate, not permissible in food products.

No. 26830, K-184. Sample of "Godillot String Beans" procured from O'Brien & Co., Detroit. Contain copper sulphate, not permissible in food products.

No. 26831, K-185. Sample of "Lalance Mixed Vegetables" procured from O'Brien & Co., Detroit. Contain copper sulphate, not permissible in food products.

No. 26958, D-151. Sample of Fame brand canned peas packed by Grafton Johnson, Greenwood, Ind. Not Early June Peas as labeled. Misbranded.

No. 27199, D-178. Sample of Our Favorite brand canned peas packed by Grafton Johnson, Whiteland, Ind., handled by H. Meisel & Son, Bay City, and procured from Eugene St. Pierre, Bay City. Not Early June Peas as labeled. Misbranded.

No. 27365, D-186. Sample of Wolf brand canned peas put up by the Dundas Canning Co., Dundas, Wis., and handled by Holmes & Kelsey, Alpena, and procured from L. C. Daley, Alpena. Not Early June Peas as labeled. Misbranded.

No. 27343, E-39. Sample of "Sisco Early June Peas" packed by the E. P. Daggett Canning Co., Coopersville, Mich., handled by the Worden Grocery Co., of Grand Rapids as jobbers and procured from A. Squier of Ovid. Not Early June Peas as labeled. Misbranded.

#### CATSUP.

No. 24706, I-1640. Sample of tomato catsup manufactured by the Engel Cider Refining Co., Jackson. Dealer, Lutz & Surbrook, Jackson. Contains benzoic acid not stated on the label.

No. 24996, S-613. Sample of catsup sold by the Horton-Cato Co., Detroit, to the Home of the Feeble-Minded and Epileptic, Flint. Product contains benzoic acid or salts thereof not stated on the label.

#### COFFEE.

Coffee as a rule is unadulterated; it is more often misbranded. However, of the six samples examined during the year 3 were adulterated

and misbranded while 2 were only misbranded. Samples S-649 and S-655 were being advertised and sold as blend coffee. A blend according to the Federal regulations is a mixture of like substances. These samples consisted of the whole coffee berry mixed with roasted wheat middlings. This material was stored in coffee bins similar to those used in Groceries, etc. The wheat middlings being heavier than the coffee berries naturally settled to the bottom and left the whole coffee berries on the top. Consequently, when one looked into the can whole coffee berries were observed, but when you bought a pound of the "blend coffee" the scope was plunged into the bin and some of the wheat middlings brought up. The inspector who bought these samples procured them in the same manner as any consumer would. He got about 40% wheat middlings and 60% whole coffee as "blend coffee." A prosecution was instituted in this case and a fine collected.

No. 25539, S-649. Sample of "Blend Coffee" sold by Lamkin Bros., Detroit. Product consists of a mixture of whole coffee berries adulterated with wheat middlings.

No. 25590, S-655. Sample of "Blend Coffee" sold by Lamkin Bros., Detroit. Product consists of a mixture of whole coffee berries adulterated with wheat middlings.

No. 25821, S-679. Sample of "coffee" manufactured by Ceylon Tea & Coffee Co., Detroit, and procured from the restaurant of John H. Hall, Detroit. Product contains approximately 25% chicory. No label on package to indicate coffee compound. Adulterated and misbranded.

No. 26236, K-178. Sample of ground coffee sold by John E. King Coffee Co., 36 Monroe Ave., Detroit, and procured from the Central Lunch Club, Valpéy Bldg. Detroit. Product is coffee compound, not labeled as such.

No. 27216, F-50. Sample of "Coco Coffee" manufactured by the Coco Coffee Co., Chicago, and procured from Batchelor & Brown, Belding. Sample is coffee compound not properly labeled.

#### FLAVORING PREPARATIONS.

25240, I-1694. Sample of vanilla extract manufactured by Baldwin & Son, Fort Wayne, Ind., and procured from Kaiser Bros., Adrian. Sample is imitation vanilla. Misbranded.

No. 25407, S-631. Sample of extract of lemon manufactured by Schorndorfer & Eberhard Co., Cleveland, Ohio, and procured from the Flint Tea Co., Flint. Below standard in oil of lemon.

No. 25541, S-651. Sample of "Vanilla & Vanillin" manufactured by The Newton Tea & Spice Co., Cincinnati, Ohio, and procured from Bloomfield & Porter, Detroit. Misbranded.

No. 25750, S-670. Sample of Lemon Mixture procured from the Library Tea Co., Detroit. Not properly labeled.

No. 25752, S-672. Sample of S. & E. Lemon Extract manufactured by the Schorndorfer & Eberhard Co., Cleveland, Ohio, and procured from the Library Tea Co., Detroit. Below standard in lemon oil.

No. 26930, Q-64. Sample of Extract Vanilla sold by J. P. Casey, 424 Woodward Ave., Detroit. Not a true extract of vanilla.

No. 27001, Q-73. Sample of Extract Vanilla manufactured and sold

by F. W. Gordon, 1219 Kircheval St., Detroit. Sample is a mixture of vanilla and coumarin and is therefore not a pure vanilla extract.

#### HORSE RADISH.

No. 26170, G-861. Sample of Horse Radish Salad procured from F. J. Cundy, Houghton. Misbranded.

No. 26354, F-20. Sample of Horse Radish manufactured by William Van Allen, Grand Rapids. Contains saccharin.

#### ICE CREAM.

One hundred sixty-six samples of ice cream were examined, 43 of which were found to contain less butter fat than the law requires. But few of these were prosecuted, owing to faults in our ice cream law which was effective at this time. The new law passed by the last session of the legislature provides that plain ice cream shall contain 10% of butter-fat while ice cream containing fruit or nuts shall contain 8%. With this law effective August 15th., 1913, no doubt more willful violators will be prosecuted. Below appears a list of those found not to comply with the old law which required 12% butter-fat for plain ice cream and 10% for ice cream containing fruit and nuts.

No. 24615, W-74. Sample of ice cream manufactured by Frank Sible, Mt. Pleasant. Sample tested 11.7% butter fat. Below standard.

No. 24653, W-97. Sample of ice cream manufactured by Tindel & Kelley, Pontiac. Sample tested 11% butter fat. Below standard.

No. 24693, W-115. Sample of ice cream manufactured by W. W. Parsons, Flint. Sample tested 7.4%. Below standard.

No. 24810, N-46. Sample of ice cream manufactured by the M. & B. Ice Cream Co., Saginaw, E. S. Sample tested 10.2% butter fat. Below standard.

No. 24863, Z-402. Sample of ice cream manufactured by the Fleming Milk Product Co., Jackson. Dealer, Thos. E. Yager, Jackson. Sample tested 11.4% butter fat. Below standard.

No. 24865, Z-404. Sample of ice cream manufactured by F. M. Colwell, Jackson. Sample tested 10.8% butter fat. Below standard.

No. 24866, Z-405. Sample of ice cream manufactured by Chas. Rutson, Jackson. Sample tested 10.1% butter fat. Below standard.

No. 24868, Z-407. Sample of ice cream manufactured by the Fassett Ice Cream Co., Jackson. Sample tested 10.5% butter fat. Below standard.

No. 24884, W-147. Sample of ice cream manufactured by C. A. Connor, Owosso. Sample tested 11.2% butter fat. Below standard.

No. 24940, N-70. Sample of ice cream manufactured by the Bay City Ice Cream Co., Bay City. Sample tested 9.7% butter fat. Below standard.

No. 25056, Z-433. Sample of ice cream manufactured by Ellis Jacobs, Dundee. Sample tested 9.4% butter fat. Below standard.

No. 25057, Z-434. Sample of ice cream manufactured by Ellis Jacobs, Dundee. Sample tested 10.8% butter fat. Below standard.

No. 25139, P-472. Sample of ice cream manufactured by the Twin City Creamery Co., Benton Harbor, and sold by Harry J. Bernard, Berrien Springs. Butter fat 5.4%. Below standard.

No. 25144, P-474. Sample of ice cream manufactured and sold by Ivan Carrel, Berrien Springs. Butter fat 9.8%. Below standard.

No. 25145, P-475. Sample of ice cream manufactured by H. O. Wilson, St. Joseph. Dealer, Murphy & Morrison, St. Joseph. Sample tested 7.8% butter fat. Below standard.

No. 25146, P-476. Sample of ice cream manufactured by H. O. Wilson, St. Joseph, and sold by Rice & Wannamaker, Benton Harbor. Butter fat 7.6%. Below standard.

No. 25147, P-477. Sample of ice cream manufactured by E. E. Rouse, Benton Harbor, and sold by H. L. Bird, Benton Harbor. Butter fat 10.3%. Below standard.

No. 25148, P-478. Sample of ice cream manufactured by E. E. Rouse, Benton Harbor, and sold by Geo. Baccash, Benton Harbor. Butter fat 9.4%. Below standard.

No. 25149, P-479. Sample of ice cream manufactured by the Twin City Creamery Co., Benton Harbor and sold by F. F. Connell, Benton Harbor. Butter fat 7.6%. Below standard.

No. 25150, P-480. Sample of ice cream manufactured by the Twin City Creamery Co., Benton Harbor and sold by Wiggins & Butsback, Benton Harbor. Butter fat 6.8%. Below standard.

No. 25151, P-481. Sample of ice cream manufactured by the Twin City Creamery Co., Benton Harbor. Butter fat 6.9%. Below standard.

No. 25166, G-806. Sample of ice cream manufactured and sold by Harper & Thomas, Calumet. Butter fat 9.2%. Below standard.

No. 25182, G-822. Sample of ice cream manufactured by Bridgeman & Russell, Hancock and sold by A. E. McAlister, Hancock. Butter fat 10.9%. Below standard.

No. 25189, P-488. Sample of ice cream manufactured and sold by Gust Baldaccini, St. Joseph. Butter fat 7.6%. Below standard.

No. 25219, P-497. Sample of ice cream manufactured and sold by Chas. E. Abell, South Haven. Butter fat 8.5%. Below standard.

No. 25220, P-498. Sample of ice cream manufactured and sold by the South Haven Ice Cream Co., South Haven. Butter fat 8.5%. Below standard.

No. 25256, W-157. Sample of Ice cream manufactured and sold by A. G. Michos, Ypsilanti. Butter fat 10%. Below standard.

No. 25269, G-826. Sample of ice cream manufactured and sold by Marco Landini, Calumet. Butter fat 9.6%. Below standard.

No. 25277, P-504. Sample of ice cream manufactured by R. W. Calkins, Holland, and sold by A. DeKruif, Zeeland. Butter fat 10%. Below standard.

No. 25279, P-506. Sample of ice cream manufactured by the West Michigan Ice Cream Co., Grand Rapids, and sold by H. Fabiano, Zeeland. Butter fat 9.8%. Below standard.

No. 25280, P-507. Sample of ice cream manufactured by Brink Bros., Holland, and sold by Haan Bros., Zeeland. Butter fat 7.2%. Below standard.

No. 25300, P-525. Sample of ice cream manufactured and sold by Brink Bros., Holland. Butter fat 10.8%. Below standard.

No. 25302, P-528. Sample of ice cream manufactured by the West

Side Ice Cream Co., Grand Rapids, and sold by C. W. Parrish, Saugatuck. Butter fat 8.4%. Below standard.

No. 25303, P-529. Sample of ice cream manufactured by Rudell Creamery, Grand Rapids. Butter fat 11.3%. Below standard.

No. 25304, P-530. Sample of ice cream manufactured by Myers & Voss, Saugatuck, and sold by R. A. Roda, Saugatuck. Butter fat 5.6%. Below standard.

No. 25371, S-628. Sample of ice cream manufactured by the Connor Ice Cream Co., Owosso. Butter fat 10%. Below standard.

No. 25424, P-573. Sample of ice cream manufactured by the Fassett Ice cream Co., Jackson, and sold by J. W. Bradshaw, Marshall. Butter fat 8.4%. Below standard.

No. 25592, P-599. Sample of ice cream manufactured and sold by the Fassett Ice Cream Co., Jackson. Sample tested 11.2% butter fat. Below standard..

No. 25593, P-600. Sample of ice cream manufactured and sold by the Fassett Ice Cream Co., Jackson. Sample tested 11.6% butter fat. Below standard.

No. 25594, P-601. Sample of ice cream manufactured and sold by the Fassett Ice Cream Co., Jackson. Sample tested 10.6% butter fat. Below standard.

No. 25595, P-602. Sample of ice cream manufactured and sold by the Fassett Ice Cream Co., Jackson. Sample tested 10.8% butter fat. Below standard.

No. 27298, Y-119. Sample of ice cream manufactured and sold by J. F. Fleming, Jackson. Butter fat 10.8%. Below standard.

No. 27299, Y-120. Sample of ice cream manufactured and sold by L. D. Hills Co., Jackson. Butter fat 8%. Below standard for fruit ice cream.

#### JELLIES, ETC.

The law requires that all Jellies or fruit butters, if they consist "wholly or in part of glucose, dextrine, starch or other substances" shall be labeled "Imitation fruit Jelly or Butter." It further provides that any of these preparations that are artificially colored cannot be sold under any consideration. With the present high prices of food stuffs, the temptation is great to make a cheap product and masquerade it as a high class article. Sixteen samples of these products were examined, three of which were found adulterated or misbranded.

24701, S-596. Sample of Glucose Apple Jelly manufactured by Williams Bros. Co., Detroit, handled by Wolverine Spice Co., Grand Rapids, and procured from Warren Shane, Charlotte. An imitation fruit jelly, artificially colored. Not salable.

No. 25411, S-635. Sample of jam manufactured by McMechen Preserving Co., Wheeling, W. Va., handled by the National Grocer Co., Lansing, and sold by Harry Johnson, Durand. Misbranded.

No. 25751, S-671. Sample of Eclipse Brand Compound Glucose Apple Jelly manufactured by the Schorndorfer & Eberhard Co., Cleveland, Ohio, and procured from the Library Tea Co., Detroit. Sample is colored with a coal tar dye.



## LARD AND LARD COMPOUND.

Thirty-three samples of lard and lard compound were examined; twenty of these were either sold or offered for sale as pure lard when they were not properly labeled as lard compound. Lard is the rendered, fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity and contains necessarily incorporated in the process of rendering, not more than one per cent of substances other than fatty acids and fat.

Lard compound is a mixture of the above material and some animal and vegetable fat or oil. The materials most commonly used for this purpose are cottonseed oil and beef fat used together or separate. In fact, it is quite common among manufacturers to mix a small amount (usually about 5%) of beef fat with lard and label it "Pure Lard with Beef Stearin added." This method is all right providing the consumer buys the original package. However, when the original package is a large tub or tierce and the retailer sells out of this, the consumer should be informed that he is not buying pure lard. This can be readily accomplished by the dealer if he will stamp the package in which he deals out the mixture "Lard Compound."

Cottonseed Oil and Beef Fat are both cheaper than lard, consequently, when competition is a little too keen, the temptation to sell "Lard Compound" for pure lard is sometimes not overcome as is shown below.

No. 25860, P-612. Sample of lard manufactured and sold by Arthur Chilson, Battle Creek. Sample is not pure lard but consists wholly or in part of a mixture of lard and cottonseed oil or cottonseed oil product.

No. 25865, P-617. Sample of lard manufactured by Wm. Yager, Battle Creek and procured from Martin Brophy, Battle Creek. Sample is not pure lard but consists wholly or in part of a mixture of cottonseed oil or a cottonseed oil product and lard.

No. 25873, P-625. Sample of lard manufactured and sold by A. L. Chilson, Battle Creek. Sample is not pure lard but consists wholly or in part of a mixture of lard and cottonseed oil or a cottonseed oil product.

No. 26555, E-16. Sample of lard compound procured from W. R. Scott, 701 W. Court St., Flint. Package not labeled lard compound.

No. 26558, E-18. Sample of lard compound procured from Joe. Frumkin, Flint. Package not stamped.

No. 26569, F-33. Sample of "Lard and Beef Fat" handled by Van Westenbrugge & Erb, Grand Rapids and procured from M. Holst, Grand Rapids. Product is lard compound not properly stamped.

No. 26896, E-24. Sample of lard compound procured from Bert Eckert, Alma. Product is lard compound not properly stamped.

No. 26908, P-701. Sample of lard procured from Arthur L. Chilson, Battle Creek. Package not stamped to indicate lard compound.

No. 26925, D-144. Sample of "Pure Lard" manufactured and sold by Weiss Bros., Saginaw. Product is lard compound not properly stamped.

No. 26944, G-880. Sample of lard manufactured by the Plankinton Packing Company, Calumet, and procured from Victor Mackey, Calumet. Package not stamped to indicate lard compound.

No. 26945, G-881. Sample of lard manufactured by the Plankinton

Packing Company, Calumet, and procured from Henry Simonen, Calumet. Package not stamped to indicate lard compound.

No. 26964, Y-100. Sample of lard procured from Miss Bessie Fitzsimmons, 168 Michigan Ave., Detroit. Package not stamped to indicate lard compound.

No. 27051, P-721. Sample of "Pure Lard with Oleo Stearine added" procured from A. Danforth & Son, St. Joseph. Not properly labeled.

No. 27140, F-42. Sample of lard manufactured by Thomasma Bros., Grand Rapids, and procured from the American Mercantile Co., Grand Rapids. Not properly labeled.

No. 27202, D-182. Sample of lard manufactured by Robert Proulx & Sons, Bay City, and procured from D. S. Dunn, Bay City. Sample is a mixture of lard and beef fat. Not properly stamped.

No. 27287, P-751. Sample of lard manufactured and sold by Arthur L. Chilson, Battle Creek. Sample is a mixture of lard and beef fat. Not properly stamped.

No. 27329, I-57. Sample of lard compound procured from C. R. Longstreet, Jackson. Sample is a mixture of lard and cottonseed oil. Package not stamped.

No. 27331, I-59. Sample of lard compound procured from L. Ambs, Jackson. Sample not stamped to indicate lard compound.

No. 27377, F-61. Sample of lard handled by Van Westenbrugge & Erb, Grand Rapids and procured from Peter Koning, Grand Rapids. Sample is a mixture of beef fat and lard. Not properly stamped.

No. 27392, I-65. Sample of lard compound procured from G. B. Dunlap, Ypsilanti. Package not stamped.

#### LINSEED OIL.

This Department is charged with the enforcement of the Linseed Oil Law. During the past year we have examined sixty-three samples of linseed oils, thirty-five of them were found to be adulterated. The majority of adulterated linseed oils that come into Michigan come from Cleveland, Ohio, and the chief adulterant used is a petroleum product. Below is the list of the 35 adulterated samples showing the manufacturer and what they contained. For further information regarding the practice of adulterating linseed oils, see the bulletin on linseed oils in another part of this publication.

No. 24774, I-1667. Sample of Raw Linseed Oil manufactured by the Standard Linseed Oil Co., Cleveland, Ohio, and procured from H. A. Gilmore, Ypsilanti. Not a pure linseed oil. Contains 10-12% of a petroleum product.

No. 24775, I-1668. Sample of Boiled Linseed Oil manufactured by the American Linseed Oil Co., Cleveland, Ohio. Dealer, C. E. Hubbard, Ypsilanti. Not a pure linseed oil. Contains wood turpentine as an adulterant.

No. 24954, U-307. Sample of Pure Raw Linseed Oil handled by the National Linseed Oil Co., Cleveland, Ohio, and procured from the Jefferson Hardware Co., Detroit. Sample is adulterated with a petroleum product.

No. 24979, U-308. Sample of Pure Raw Linseed Oil handled by the

Eastland Linseed Co., Cleveland, Ohio, and procured from S. Knoppon, Detroit. Sample is adulterated with a petroleum product.

No. 24985, I-1682. Sample of boiled linseed oil handled by the Great Western Oil Co., Grand Rapids, and procured from Strong Bros., Homer. Sample adulterated with a petroleum product.

No. 25096, U-310. Sample of "pure raw linseed oil" manufactured by the National Linseed Co., Cleveland, Ohio, and procured from the Columbia Western Mills, 957 Hubbard Ave., Detroit. Sample adulterated with a petroleum product.

No. 25097, U-311. Sample of "pure boiled linseed oil" manufactured by the National Linseed Co., Cleveland, Ohio, and procured from the Columbia Western Mills, Detroit. Sample is adulterated with a petroleum product.

No. 25641, F-185. Sample of Raw Linseed Oil manufactured by the Monitor Oil Co., Cleveland, Ohio, and procured from Herron & Son, Boyne City. Adulterated with a petroleum product.

No. 25642, F-186. Sample of Raw Linseed Oil manufactured by the Monitor Oil Co., Cleveland, Ohio, and procured from Halloran & Burney, Boyne City. Adulterated with a petroleum product.

No. 25643, F-187. Sample of Raw Linseed Oil manufactured by the Monitor Oil Co., Cleveland, Ohio, and procured from W. H. White Co., Boyne City. Adulterated with a petroleum product.

No. 26258, D-13. Sample of linseed oil procured from Vaughan & Clarke, Gagetown. Does not conform to the requirements of the linseed oil law. Contains about 25% of a petroleum product.

No. 26277, I-5. Sample of raw linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from Hartsig & Williams, Carleton. Adulterated with a petroleum product.

No. 26340, D-26. Sample of raw linseed oil manufactured by the Globe Oil Co., Cleveland, Ohio, and procured from Cowan & Binkle, Deckerville. Adulterated with a petroleum product.

No. 26343, D-29. Sample of linseed oil sold by the Southern States Turpentine Co., Cleveland, Ohio, and procured from J. Maywood & Son, Bad Axe. Adulterated with a petroleum product.

No. 26355, I-6. Sample of raw linseed oil manufactured by the Globe Oil Co., Cleveland, Ohio, and procured from J. C. Bottimer, LaSalle. Adulterated with a petroleum product.

No. 26560, V-2. Sample of raw linseed oil manufactured by the Standard Linseed Co., Cleveland, Ohio, procured from G. A. Krueger & Sons, 1123 Meldrum Ave., Detroit. Contains about 20% foreign matter, probably petroleum products.

No. 26582, D-83. Sample of boiled linseed oil from Cook and Remtjers, Bay City. Sample is adulterated with a mixture of rosin oil and a petroleum product.

No. 26590, I-13. Sample of boiled linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, handled by the Great Eastern Oil & Paint Co., Cleveland, Ohio, and procured from Chas. Steinbach, Chelsea. Adulterated with a mixture of petroleum product and rosin or rosin oil. About 40% foreign matter.

No. 26591, I-14. Sample of raw linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from Chas.

Steinbach, Chelsea. Does not conform to the legal requirements for a pure linseed oil.

No. 26617, U-6. Sample of raw linseed oil handled by the Eastland Linseed Co., Cleveland, Ohio, and procured from B. Friedman, 450 Rivard St., Detroit. Adulterated with about 20% foreign matter, probably a petroleum product.

No. 26630, I-17. Sample of raw linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from L. N. Fielding, Addison. Adulterated with a foreign fatty oil. Not pure linseed oil.

No. 26631, I-18. Sample of boiled linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from L. N. Fielding, Addison. Adulterated with rosin and probably petroleum product. Has 10 to 15% foreign matter.

No. 26655, D-91. Sample of boiled linseed oil procured from Chas. A. Sturmet, Port Huron. Sample contains about 11—12% of a petroleum product. Does not conform to the legal requirements for boiled linseed oil.

No. 26839, I-23. Sample of boiled linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from the Blissfield Hardware Co., Blissfield. Sample is adulterated with about 55% of a petroleum product.

No. 26840, I-24. Sample of raw linseed oil manufactured by the American Linseed Oil Co., Cleveland, Ohio, and procured from the Blissfield Hardware Co., Blissfield. Does not conform to the legal requirements for pure linseed oil.

No. 26841, D-127. Sample of raw linseed oil manufactured by the National Linseed Company, Cleveland. Not a pure oil. Sample contains about 23% of a petroleum product.

No. 26842, D-128. Sample of boiled linseed oil manufactured by the National Linseed Company, Cleveland, Ohio. Not a pure linseed oil. Sample contains about 34% of a petroleum product.

No. 27026, D-167. Sample of raw linseed oil manufactured by the Eastland Linseed Co., Cleveland, Ohio, and procured from Harry P. Neal, Smith's Creek. Sample is adulterated with about 30% of a petroleum product.

No. 27027, D-168. Sample of raw linseed oil manufactured by the Globe Refining Co., Cleveland, Ohio, and procured from James Cogley Sons, Memphis. Sample is adulterated with about 11% of a petroleum product.

No. 27046, D-170. Sample of boiled linseed oil manufactured by the Globe Refining Co., Cleveland, Ohio, and procured from George Miller, Bay City W. S. Contains about 36% of an added adulterant.

No. 27139. Unofficial sample linseed oil. Adulterated with 45% of a petroleum product.

No. 27144. Unofficial sample of linseed oil. Sample is adulterated with a petroleum product. About 50% adulterant added.

No. 27213, G-891. Sample of boiled linseed oil manufactured by the Standard Linseed Co., Cleveland, Ohio, and procured from M. C. Sorenson, Menominee. Sample contains about 37% of a petroleum product.

No. 27301. Unofficial sample of raw linseed oil. Adulterated with about 50% of a petroleum product.

No. 27871, D-138. Sample of linseed oil manufactured by the Ameri-

can Linseed Oil Co., Cleveland, Ohio, and procured from Quigg Bros., Carsonville. Does not conform to the legal requirements for pure linseed oil.

#### MAPLE SUGAR.

Three samples of Maple Sugar were examined. One was found to be adulterated and a prosecution was instituted.

No. 26903, P-697. Sample of Maple Sugar procured from W. K. Pickard, Kalamazoo. Sample is not pure maple sugar.

#### MEATS.

One hundred and ninety samples of meats were examined; 72 of these were found to be adulterated or misbranded. The greater portion of the samples were Hamburg Steak and were adulterated by reason of the fact that they contained sulphurous acid or salts thereof.

Perhaps it may not be amiss here to explain what is meant by the phrase, added sulphurous acid or salts thereof, as it often appears in the Laboratory report. It has been found that, when sulphur dioxide, a gas which is formed when sulphur is burned, is brought in contact with meat a peculiar reaction takes place. The meat takes on a bright red color, which gives it the appearance of freshly cut meat. It further prevents putrefaction or spoiling, thereby acting as a chemical preservative. It is not common nor practical to add sulphur dioxide to meat in the form of a gas; consequently the meat man must use it in some more stable and practical form. When sulphur dioxide is passed into water it is dissolved and forms sulphurous acid. If this in turn is then combined with sodium we get a salt of sulphurous acid such as sodium sulphite. This then is the more stable and practical form for use and is the form generally found in meat markets.

This chemical is furnished butchers in various ways and often when sulphurous acids or salts thereof are found in chopped meats an investigation will show that the butcher, although he may know that the addition of sulphite is illegal, he has been led to believe that the particular material he is using is permissible. This is accounted for by the fact that he has purchased an article for use in meat markets which is for all intents and purposes a perfectly legitimate article.

Some firms (See Dairy and Food Bulletins Nos. 177-203 inclusive), mix up a batch of common salt, saltpetre and sodium sulphite, put it up in a fancy colored bottle or carton, give it a coined name such as "XXX Preservaline," "Zero," "I. X. L. Preservative," "Freeze-em," etc., etc., and palm it off onto the butcher at an exorbitant price. The labels on these packages claim them to be merely an antiseptic for use in cleaning and scrubbing ice boxes, etc., and are generally worded about the same, of which the following is a good example:

#### "ZERO."

The active principle of Zero is a gas which is given off when the powder becomes moist. This gas is a powerful germicide and deodorizer and can be advantageously used in various ways.

#### "Directions."

To keep ice boxes pure and fresh, etc.

(With directions for using.)

To keep tubs, pails, blocks and all butchers' and packers' utensils clean and fresh, etc.

(With directions for using.)

Nowhere in the entire label does it say anything about using this material in meat. But this feature is conveniently met by the agents who give the butcher verbal instructions as to how it can be used in meats. Then when we find it in chopped meat we can only hold the butcher liable as the manufacturers have a legal right to sell it under their labels.

This it seems to me, constitutes a wholesale fraud on the butcher not only in selling him an article at an exorbitant price that costs but a few cents but also through misrepresentation puts him in a position where he may be prosecuted by this Department.

#### MEATS.

No. 24607, P-411. Sample of Hamburg Steak manufactured by Moon & Aldrich, and procured from Harry Hill, Battle Creek. Sample contained sulphites.

No. 24608, P-412. Sample of Hamburg Steak manufactured by S. J. Freed, Battle Creek, and procured from Steadman & Phillips, Battle Creek. Contained sulphites.

No. 24698, S-593. Sample of Hamburg Steak manufactured and sold by Hodgkinson & Johnson, Charlotte. Contained boric acid.

No. 24715, I-1665. Sample of Hamburg Steak manufactured by A. L. Chilson, Battle Creek. Sample contains sulphites.

No. 24716, I-1666. Sample of bologna manufactured by E. Freeland, Battle Creek. Colored with coal tar dye.

No. 24776, I-1669. Sample of bologna manufactured by Bergman & Yaw, Battle Creek. Contains cereal not stated on the package.

No. 24779, P-427. Sample of Meat from Albin Syc, Kalamazoo. Decomposed, unfit for human food.

No. 24869, P-444. Sample of Meat from James J. Hitchings, Petoskey. Decomposed meat, unfit for human food.

No. 24870, P-445. Sample of Meat from James J. Hitchings, Petoskey. Decomposed meat, unfit for human food.

No. 24943, I-1677. Sample of Hamburg Steak manufactured and sold by J. A. Phillips, Jackson. Contains small amount of added sulphites.

No. 24980, V-312. Sample of Hamburg Steak manufactured by Collier & Greenhoe, Ionia. Sample contains added sulphites.

No. 25419, V-319. Sample of Hamburg Steak manufactured and sold by W. G. Longe & Son, Ionia. Product contains added sulphurous acid or salts thereof. Held to be injurious to health.

No. 25583, G-844. Sample of Hamburg Steak manufactured and sold by J. H. Moher, Sault Ste. Marie. Product contains added sulphurous acid or salts thereof, not permissible in food products.

No. 25702, S-667. Sample of Hamburg Steak manufactured and sold by H. F. Bopp, Lansing. Product contains added sulphurous acid or salts thereof, a substance not permissible in food products.

No. 25744, G-849. Sample of Hamburg Steak manufactured and sold by Cameron Bros., Sault Ste. Marie. Product contains added sulphurous acid or salts thereof, a substance not permissible in food products.

No. 25746, G-851. Sample of Hamburg Steak manufactured and sold by J. H. Roe, Sault Ste. Marie. Product contains sulphurous acid or salts thereof, a substance not permissible in food products.

No. 25758, V-322. Sample of Hamburg Steak manufactured and sold by J. Gutbroudt, Muskegon. Product contains sulphurous acid or salts thereof, a substance not permissible in food products.

No. 25856, Z-462. Sample of Hamburg Steak manufactured and sold by Wm. D. Vogel, 115 E. Ann street, Ann Arbor. Product contains sulphurous acid or salts thereof.

No. 25915, P-629. Sample of Hamburg Steak manufactured and sold by H. C. Latta, Battle Creek. Sample contains added sulphurous acid or salts thereof.

No. 25956, V-335. Sample of Hamburg Steak manufactured and sold by O. M. Falerski, Grand Rapids. Product contains a small amount of added sulphurous acid or salts thereof.

No. 25957, V-336. Sample of Hamburg Steak manufactured and sold by Joe Levandowski, Grand Rapids. Product contains added sulphurous acid or salts thereof.

No. 25961, I-1788. Sample of Hamburg steak manufactured by A. Lemble, Ann Arbor, and procured from Christ Colovos, Ann Arbor. Product contains a small amount of added sulphites.

No. 26073. Unofficial sample of pork sausage. Contains cereal not stated on the package.

No. 26114, V-340. Sample of Hamburg Steak manufactured and sold by Smith & Mindel, Grand Rapids. Sample contains added sulphurous acid or salts thereof not permissible in food products.

No. 26127, K-168. Sample of pork sausage in cases manufactured by the Clover Top Sausage Co., 36 Sylvan St., Detroit, and procured from M. Gleason, Central Market, Detroit. Not stamped "Sausage with Cereal."

No. 26181, G-863. Sample of Bologna Sausage manufactured by Jos. Leffler, Ishpeming, and procured from Wm. Fassbunder, Marquette. Contains cereal. Package not stamped.

No. 26184, G-866. Sample of Frankfurt Sausage manufactured by Gust Erickson, Marquette, and procured from Abraham Fine, Marquette. Contains cereal. Package not stamped.

No. 26198, F-3. Sample of sausage manufactured and sold by Smith & Mindel, Grand Rapids. Sample contains starch not stated on package.

No. 26420, D-40. Sample of sausage manufactured and sold by C. R. Schneider, Capac. Contains cereal. Package not stamped.

No. 26429, D-49. Sample of bologna procured from T. J. Minnie, Yale. Cereal present. Package not stamped.

No. 26430, D-50. Sample of bologna manufactured and sold by T. J. Minnie, Yale. Cereal present. Package not stamped.

No. 26458, D-57. Sample of Hamburg Steak manufactured and sold by Emil Woschnak, 2344 S. Michigan Ave., Saginaw. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.

No. 26459, E-7. Sample of Bologna Meat procured from F. A. Walter-

house, Elsie. Sample consists wholly or in part of decomposed meat. Not fit for human consumption.

No. 26464, D-53. Sample of sausage manufactured and sold by Schwinck Bros., Saginaw. Sample contains cereal not stated on the package.

No. 26465, D-54. Sample of Hamburg Steak manufactured and sold by Schwinck Bros., Saginaw. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.

No. 26471, D-60. Sample of sausage manufactured by the Saginaw Beef Co., Saginaw, and procured from Herman G. Rachuth, Saginaw. Sample contains cereal not stated on the package.

No. 26580, D-81. Sample of sausage manufactured by Chas. Nolet, Bay City, and procured from the Washington Street Market, Bay City. Sample contains cereal not stated on the label.

No. 26581, D-82. Sample of sausage manufactured by the Bay City Beef Company, Bay City, and procured from E. W. Funnel, Bay City. Sample contains cereal not stated on the label.

No. 26606, P-677. Sample of Meat sold by P. Buckhout, Kalamazoo, and procured from C. Luyendyk, Kalamazoo. Contains tubercles, containing living tubercle bacilli. Diseased meat.

No. 26643, S-2. Sample of Hamburg Steak procured from G. T. Green, Oxford. Sample contains a small amount of sulphurous acid or salts thereof. Not permissible in food products.

No. 26658, D-94. Sample of Bologna manufactured by J. R. Ruppel, Port Huron, and procured from J. R. White, Port Huron. Contains cereal. No statement on package.

No. 26671, S-5. Sample of Hamburg Steak procured from J. Powloski, Pontiac. Sample contains added sulphites. Not permissible in food products.

No. 26686, F-34. Sample of Hamburg Steak manufactured and sold by Albert Stein, Grand Rapids. Sample contains added sulphites. Not permissible in food products.

No. 26764, I-21. Sample of Hamburg Steak manufactured and sold by H. A. Drury, Reading. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 26853, I-28. Sample of Hamburg Steak manufactured and sold by H. J. Mobus, Adrian. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 26871, D-135. Sample of Frankfurt Sausage procured from W. J. Toley, Crowell. Starch present, no statement on package to indicate same.

No. 26881, I-31. Sample of Hamburg Steak manufactured and sold by F. W. Rowe & Son, Camden. Sample contains a small amount of added sulphurous acid or salts thereof. Not permissible in food products.

No. 26882, I-32. Sample of Hamburg Steak manufactured and sold by H. A. Drury & Co., Reading. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.

No. 26920, P-705. Sample of Hamburg Steak manufactured and sold by Arthur L. Chilson, Battle Creek. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.



No. 26921, P-706. Sample of Hamburg Steak manufactured and sold by Arthur L. Chilson, Battle Creek. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.

No. 26926, D-145. Sample of Frankfurt Sausage manufactured by Chas. W. Henning & Son, Saginaw, and procured from W. H. Meader, Saginaw. Cereal present. No statement on package to indicate same.

No. 26950, I-36. Sample of Hamburg Steak manufactured and sold by W. R. Nichols, Jackson. Sample contains sulphurous acid or salts thereof a preservative not permissible in food products.

No. 26979, I-37. Sample of Hamburg Steak manufactured and sold by Webber & Bosson, Jackson. Sample contains added sulphurous acid or salts thereof. Not permissible in food products.

No. 27016, I-39. Sample of Hamburg Steak manufactured and sold by John Shram, Jackson. Sample contains sulphurous acid or salts thereof. Not permissible in food products.

No. 27091, S-8. Sample of Hamburg Steak manufactured and sold by John Affeldt, Lansing. Sulphites present. Not permissible in food products.

No. 27116, Y-115. Sample of Hamburg Steak manufactured and sold by Geo. Spathelf, Ann Arbor. Sulphites present. Not permissible in food products.

No. 27136, I-49. Sample of Hamburg Steak manufactured and sold by H. C. Borgert, Dundee. Sulphites present. Not permissible in food products.

No. 27145, F-43. Sample of Hamburg Steak manufactured and sold by Fashbaugh & Jones, Lowell. Added sulphites present. Not permissible in food products.

No. 27165, P-735. Sample of Hamburg Steak manufactured and sold by A. A. Hardke, St. Joseph. Added sulphites present. Not permissible in food products.

No. 27166, P-736. Sample of Hamburg Steak manufactured and sold by F. C. Lucker, St. Joseph. Added Sulphites present. Not permissible in food products.

No. 27173, F-47. Sample of Hamburg Steak manufactured and sold by O. M. Falarski, Grand Rapids. Added sulphites present. Not permissible in food products.

No. 27305, I-54. Sample of Hamburg Steak manufactured and sold by A. E. Nicholls, Jackson. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 27338, P-753. Sample of Hamburg Steak manufactured and sold by Chas. Cherry, Benton Harbor. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 27339, I-60. Sample of Hamburg Steak manufactured and sold by the Howard Meat Co., Albion. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 27340, I-61. Sample of Hamburg Steak manufactured and sold by the Howard Meat Co., Albion. Sample contains sulphurous acid or salts thereof, not permissible in food products.

No. 27344, I-62. Sample of Hamburg Steak manufactured and sold by C. A. Chamberlain, Springport. Sample contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27362, P-754. Sample of Hamburg Steak manufactured and sold

by P. H. Hirsch, Benton Harbor. Contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27363, P-755. Sample of Hamburg Steak manufactured and sold by M. J. Teed, Benton Harbor. Contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27388, P-758. Sample of Hamburg Steak manufactured and sold by Geiger & Burns, Three Rivers. Contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27389, P-759. Sample of Hamburg Steak manufactured and sold by Brand & Wohlfeil, Three Rivers. Contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27393, G-895. Sample of Hamburg Steak manufactured and sold by Morris Anderson, Gladstone. Contains added sulphurous acid or salts thereof, not permissible in food products.

No. 27394, G-896. Sample of Hamburg Steak manufactured and sold by Olson & Anderson, Gladstone. Contains added sulphites, not permissible in food products.

#### MILK.

The samples of milk examined hardly need further explanation than already appears in the brief report after each sample. The statute requires that milk to be legal should have a specific gravity of 1.029-1.033; that it should contain 12.5% solids, not less than 3% butter fat and that it contain no foreign or unwholesome substance. In my opinion this law is unfair as it has been my experience that very little milk produced in Michigan will contain 12.5% solids. This content of solids is altogether too high. It seems advisable that this feature of the statute be amended. 568 samples were examined; 146 of these were found adulterated within the meaning of the statute. 47 of these were adulterated for the reason that they contained added water. The report shows that some of the samples contained as high as 45% added water, while the average per cent added water in all watered milk samples is 22%. At eight cents per quart the average retail price of Michigan milk, this means when a person buys a quart of milk containing 22% water, he is paying  $1\frac{3}{4}$  cents for water. For a family using one quart of milk per day, they pay in a year's time \$6.39 for water. Prosecutions were brought in a number of these cases and fines collected. The amount of fines varied from payment of costs to \$100.00 and costs. Such fines as the former don't go very far in discouraging the watering of milk, as the amount of the fine can readily be made up. At eight cents per quart, on every 40 quart can of milk sold containing 22% added water, the milk man receives 70 cents for water. About ten such cans will generally pay the costs of court proceedings. However, adding \$50.00 to \$100.00 on to the costs in the way of a fine, puts enough of a crimp in the violator's pocketbook that he doesn't care to have it happen again. Eight of the 146 samples were skimmed. 87 samples were adulterated for the reason that they contained an excessive amount of dirt.

No. 24626, W-85. Sample of milk from Frank Trego, Hastings. Impure milk, contains an excessive amount of dirt.

No. 24640, P-415. Sample of milk from H. W. Houghton, Traverse City. Below standard in solids and specific gravity. Contains added water.

No. 24696, S-591. Sample of milk from C. E. Vanalstine, Dimondale. Below standard in total solids and butter fat.

No. 24753, N-6. Sample of milk from A. Knuitzer, Saginaw, W. S., R. F. D. No. 6. Below standard in specific gravity and total solids. Contains added water.

No. 24777, P-425. Sample of milk from U. G. Grandbois, Kalamazoo, R. F. D. No. 6. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 24778, P-426. Sample of milk produced by F. E. Disbrow, Kalamazoo, and sold by U. G. Grandbois, Kalamazoo, R. F. D. No. 6. Below standard in specific gravity and total solids. Contains about 14% added water.

No. 24781, P-429. Sample of milk from F. E. Disbrow, Kalamazoo, R. F. D. No. 6. Below standard in specific gravity and total solids. Sample contains about 27% added water.

No. 24782, P-430. Sample of milk from F. E. Disbrow, Kalamazoo, R. F. D. No. 6. Below standard in specific gravity and total solids. Contains about 26% added water.

No. 24784, P-432. Sample of milk from John Werkman, Kalamazoo. Below standard in specific gravity and total solids. Sample contains from 11-12% added water.

No. 24785, P-433. Sample of milk from John Werkman, Kalamazoo. Below standard in specific gravity and total solids. Sample contains from 14-15% added water.

No. 24804, N-40. Sample of milk from Max Flathan, Saginaw, E. S. Impure milk, contains an excessive amount of visible dirt.

No. 24838, W-119. Sample of milk from Robert Rinn, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24839, W-120. Sample of milk from Dick Richards, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24841, W-122. Sample of milk from Clarence Day, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24844, W-125. Sample of milk from C. W. Esterbrook, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24845, W-126. Sample of milk from L. Roat, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24846, W-127. Sample of milk from Robert Woodbury, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24850, W-131. Sample of milk from Clare Thomas, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24852, W-133. Sample of milk from H. Lundy, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24853, W-134. Sample of milk from J. E. Britton, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24855, W-136. Sample of milk from C. K. Warner, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24856, W-137. Sample of milk from M. Daley, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24859, W-140. Sample of milk from E. Richards, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24860, W-141. Sample of milk from Joe Perry, Flint, R. F. D. No. 6. Impure milk, contains an excessive amount of visible dirt.

No. 24872, W-143. Sample of milk procured from A. Knuitzer, Saginaw, W. S. Sample is below standard in specific gravity, butter fat and total solids.

No. 24876, Z-408. Sample of milk procured from M. Clancy, Grass Lake. Below standard in specific gravity and total solids. Contains added water.

No. 24894, Z-409. Sample of milk procured from M. Clancy, Grass Lake. Below standard in total solids and specific gravity. Contains added water.

No. 24895, Z-410. Sample of milk procured from M. Clancy, Grass Lake. Below standard in specific gravity. Contains added water.

No. 24896, Z-411. Sample of milk procured from M. Clancy, Grass Lake. Below standard in specific gravity and total solids. Contains about 17% added water.

No. 24902, P-442. Sample of milk procured from Otto Hahn, Harbor Springs, R. F. D. No. 1. Contains an excessive amount of dirt.

No. 24911, P-453. Sample of milk procured from George Block, Charlevoix. Contains an excessive amount of dirt.

No. 24912, P-454. Sample of milk procured from the Charlevoix Creamery Co., Charlevoix. Impure milk, contains an excessive amount of dirt.

No. 24913, P-455. Sample of milk procured from Wm. Shapton, Charlevoix. Below standard in specific gravity and contains an excessive amount of dirt.

No. 24919, N-49. Sample of milk procured from J. J. McGinty, Bay City. Below standard in specific gravity and total solids. Contains a small amount of added water.

No. 24921, N-51. Sample of milk procured from Mrs. Adolph Leix, Bay City. Impure milk, contains an excessive amount of dirt.

No. 24922, N-52. Sample of milk procured from J. B. Stevens, Bay City. Impure milk, contains an excessive amount of dirt.

No. 24927, N-57. Sample of milk procured from Chas. Roth, Bay City. Impure milk, contains an excessive amount of dirt.

No. 24929, N-59. Sample of milk procured from S. S. Schantz, Bay City, R. F. D. No. 3. Impure milk, contains an excessive amount of dirt.

No. 24932, N-62. Sample of milk procured from T. F. Marston, Bay City. Impure milk, contains an excessive amount of dirt.

No. 24933, N-63. Sample of milk procured from Chas. Freibe, Bay City. Impure milk, contains an excessive amount of dirt.

No. 24973, Z-424. Sample of milk procured from Julius Newman, Wyandotte. Below standard in specific gravity, total solids and butter fat. Contains about 20% added water.

No. 24986, N-84. Sample of milk procured from John Schmenski, Alpena, R. F. D. No. 1. Contains an excessive amount of dirt.

No. 24988, N-86. Sample of milk from Frank Markowski, Alpena. Contains an excessive amount of visible dirt.

No. 24992, N-90. Sample of milk procured from C. N. Daggett, Alpena. Sample contains added water.

No. 25029, G-718. Sample of milk procured from Chas. Beals, Manistique. Contains an excessive amount of dirt.

No. 25052, G-736. Sample of milk procured from M. Hendrickson,

Escanaba. Below standard in specific gravity. Contains an excessive amount of dirt and about 15% added water.

No. 25059, G-740. Sample of milk procured from Mrs. E. Preiser, Menominee. Below standard in specific gravity and total solids. Contains added water.

No. 25062, G-743. Sample of milk procured from H. J. Reuss, Menominee. Contains an excessive amount of dirt.

No. 25063, G-744. Sample of milk procured from Wm. Cort, Menominee. Contains an excessive amount of dirt.

No. 25064, G-745. Sample of milk procured from Henry Schumacher, Menominee. Contains an excessive amount of dirt.

No. 25067, G-748. Sample of milk procured from I. Stephenson, Menominee. Contains an excessive amount of dirt.

No. 25078, N-100. Sample of milk procured from Duncan Campbell, Elkton, R. F. D. No. 1. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 25086, G-750. Sample of milk procured from Mary Aechecheu, Iron Mountain. Contains an excessive amount of dirt.

No. 25087, G-751. Sample of milk procured from Alex Anderson, Iron Mountain. Contains an excessive amount of dirt.

No. 25095, Z-435. Sample of milk procured from John Mayer, Monroe. Below standard in specific gravity and total solids. Sample contains about 10% of added water.

No. 25104, G-765. Sample of milk procured from A. Hanson, Ishpeming. Contains an excessive amount of dirt.

No. 25131, G-786. Sample of milk procured from Christ Trevarow, Laurium. Below standard in total solids and butter fat. Sample is skimmed milk.

No. 25134, G-789. Sample of milk procured from Wm. Heikkela, Laurium. Contains an excessive amount of dirt.

No. 25141, N-108. Sample of milk procured from F. W. Reid, Bay City. Contains an excessive amount of dirt.

No. 25154, G-794. Sample of milk procured from Jos. Koski, Calumet. Contains an excessive amount of dirt.

No. 25155, G-795. Sample of milk procured from James Colombo, Calumet. Contains an excessive amount of dirt.

No. 25156, G-796. Sample of milk procured from Dominie Sandretto, Calumet. Contains an excessive amount of dirt.

No. 25158, G-798. Sample of milk procured from Morrison estate, Calumet. Contains an excessive amount of dirt.

No. 25170, G-810. Sample of milk procured from John Zurcher, Houghton. Contains an excessive amount of dirt.

No. 25171, G-811. Sample of milk procured from Sylvester Sandretto, Hancock. Contains an excessive amount of dirt.

25204, Z-437. Sample of milk procured from Alfred Kindle, Milan. Below standard in specific gravity, butter fat and total solids. Contains about 30% added water.

No. 25209, N-110. Sample of milk procured from Levi Cooley, Clio, R. F. D. No. 1. Below standard in specific gravity, butter fat and total solids. Sample contains an excessive amount of dirt and about 35% of added water.

No. 25215, P-493. Sample of milk procured from Teske Bros., South Haven. Below standard in butter fat and total solids. A part of the cream has been removed.

No. 25245, N-112. Sample of milk procured from Archie Gates, Bay City, R. F. D. No. 3. Below standard in specific gravity and total solids. Contains about 15% added water.

No. 25265, N-117. Sample of milk procured from Frank Markowski, Alpena. Below standard in specific gravity and total solids. Contains about 7% added water.

No. 25267, N-119. Sample of milk procured from Charles Steel, Alpena. Milk unsafe.

No. 25274, P-501. Sample of milk procured from Henry Scholten, Zeeland R. F. D. No. 5. Contains an excessive amount of visible dirt.

No. 25276, P-503. Sample of milk procured from John Diekama, Zeeland. Contains an excessive amount of visible dirt.

No. 25278, P-505. Sample of milk procured from Henry Scholten, Zeeland. R. F. D. No. 5, contains an excessive amount of visible dirt.

No. 25284, P-509. Sample of milk procured from Jacob Schaap, Holland. Contains an excessive amount of visible dirt.

No. 25288, P-513. Sample of milk procured from J. Saggars, Holland. Contains an excessive amount of visible dirt.

No. 25294, P-519. Sample of milk procured from Gerrit Oonk, Holland. Contains an excessive amount of visible dirt.

No. 25324, N-122. Sample of milk procured from the Sanitary Restaurant, Flint. Below standard in butter fat and total solids. Above standard in specific gravity. A part of the cream has been removed.

No. 25334, P-538. Sample of milk procured from James Ketcham, Lake Odessa. Contains an excessive amount of dirt.

No. 25335, P-539. Sample of milk procured from Walter Lee, Saranac. Contains an excessive amount of visible dirt.

No. 25343, P-547. Sample of milk procured from J. C. Wagonman, Woodland. Contains an excessive amount of visible dirt.

No. 25346, P-550. Sample of milk procured from Frank Shriber, Hastings R. F. D. No. 3. Contains an excessive amount of visible dirt.

No. 25347, P-551. Sample of milk procured from O. Pickens. Contains an excessive amount of visible dirt.

No. 25348, P-552. Sample of milk procured from O. Bacheldor, Lake Odessa. Contains an excessive amount of visible dirt.

No. 25350, P-554. Sample of milk procured from C. Kine, Hastings R. F. D. No. 3. Below standard in butter fat.

No. 25352, P-556. Sample of milk procured from Joseph Smith, Hastings. Below standard in butter fat.

No. 25354, P-558. Sample of milk procured from Chas. Mower, Lake Odessa. Contains an excessive amount of dirt.

No. 25365, P-569. Sample of milk procured from R. Henney, Lake Odessa. Below standard in specific gravity and total solids. Contains about 20% added water.

No. 25366, P-570. Sample of milk procured from R. Henney, Lake Odessa. Below standard in specific gravity and total solids. Contains about 25% added water.

No. 25378, N-129. Sample of milk procured from Frank Bates, Port Huron. Contains an excessive amount of dirt.

No. 25426, P-575. Sample of milk procured from Geo. E. Brosholm, Marshall. Contains an excessive amount of dirt.

No. 25456, P-591. Sample of milk procured from A. J. White, Battle Creek. Contains an excessive amount of dirt.

No. 25457, P-592. Sample of milk procured from A. J. White, Battle Creek. Contains an excessive amount of dirt.

No. 25458, P-593. Sample of milk procured from A. J. White, Battle Creek. Contains an excessive amount of dirt.

No. 25462, N-143. Sample of milk procured from Christ Winter, Sebewaing, R. F. D. No. 1. Contains an excessive amount of dirt.

No. 25463, N-144. Sample of milk procured from Herman Gremel, Sebewaing, R. F. D. No. 1. Contains an excessive amount of dirt.

No. 25477, G-833. Sample of milk procured from M. Hendrickson, Escanaba. Contains an excessive amount of dirt.

No. 25533, Z-439. Sample of milk procured from Alfred Godfrey, Jonesville. Below standard in specific gravity, butter fat and total solids. Contains about 35% added water.

No. 25535, Z-441. Sample of milk procured from Amanuel Denning, Jonesville. Below standard in butter fat and total solids.

No. 25610, Z-444. Sample of milk procured from William E. Beard, Ypsilanti. Impure milk, contains an excessive amount of visible dirt.

No. 25618, Z-445. Sample of milk procured from Alfred Godfrey, Jonesville R. F. D. No. 9. Contains added water.

No. 25663, N-151. Sample of milk procured from John Boivin, Brant R. F. D. No. 4. Sample contains an excessive amount of dirt.

No. 25664, N-152. Sample of milk procured from Henry Palmer, St. Charles. Contains an excessive amount of dirt.

No. 25665, N-153. Sample of milk procured from E. Lester, Brant R. F. D. No. 2. Contains an excessive amount of visible dirt.

No. 25666, N-154. Sample of milk procured from C. P. Ward, Brant R. F. D. No. 4. Contains an excessive amount of visible dirt.

No. 25667, N-155. Sample of milk procured from Ben Birch, Brant R. F. D. No. 2. Contains an excessive amount of dirt.

No. 25668, N-156. Sample of milk procured from E. Hahn, Brant R. F. D. No. 1. Contains an excessive amount of visible dirt.

No. 25669, N-157. Sample of milk procured from J. W. Whaley, Brant R. F. D. No. 1. Contains an excessive amount of visible dirt.

No. 25670, N-158. Sample of milk procured from Charles Eaton, Brant R. F. D. No. 1. Contains an excessive amount of visible dirt.

No. 25671, N-159. Sample of milk procured from H. O. Boone, Brant R. F. D. No. 1. Contains an excessive amount of visible dirt.

No. 25703, Z-447. Sample of milk procured from John Slicker, Lambertville. Below standard in specific gravity and total solids. Contains about 22% added water.

No. 25704, Z-448. Sample of milk procured from John Slicker, Lambertville. Below standard in specific gravity and total solids. Contains about 20% added water.

No. 25717, N-170. Sample of milk procured from Fred Almroth, Flint. Contains an excessive amount of visible dirt.

No. 25720, Z-452. Sample of milk procured from Bert Styne, Waldron. Contains an excessive amount of visible dirt.

No. 25721, Z-453. Sample of milk procured from James Weaver, Waldron. Contains an excessive amount of visible dirt.

No. 25725, Z-457. Sample of milk procured from Joseph Currier, Waldron. Contains about 13% added water. Below standard in specific gravity and total solids. Impure, as it contains an excessive amount of visible dirt.

No. 25727, Z-459. Sample of milk from Alfred McMeete, Prattville. Contains an excessive amount of dirt.

No. 26011, P-636. Sample of milk from W. C. Jasper, St. Joseph. Below standard in specific gravity and total solids. Contains about 24% added water.

No. 26191, G-868. Sample of milk procured from M. A. Quandt, Harvey, Marquette county. Below standard in specific gravity and total solids. Sample contains about 10% added water.

No. 26250, G-869. Sample of milk procured from Charles Rowe, Ishpeming. Below standard in specific gravity and total solids. Sample contains about 20% added water.

No. 26613, E-21. Sample of milk procured from the Sanitary Restaurant, Chas. Ghitsas, Proprietor. Below standard in specific gravity, total solids and butter fat. A part of the cream has been removed.

No. 26615, J-1. Sample of milk procured from Edward Stineke, Redford R. F. D. No. 1. Below standard in specific gravity and total solids. Sample contains about 45% added water.

No. 26620, J-4. Sample of milk procured from C. F. Longton, Redford R. F. D. No. 1. Sample is below standard in specific gravity, and total solids and contains about 23% added water.

No. 26638, J-9. Sample of milk procured from Matthew Goebel, Dearborn. Below standard in specific gravity, butter fat and total solids. Contains about 40% added water.

No. 26639, J-10. Sample of milk procured from John Longeman, Dearborn R. F. D. No. 2. Below standard in specific gravity, butter fat and total solids. Contains about 10% added water.

No. 26640, J-11. Sample of milk procured from John Nollar, Dearborn. Below standard in specific gravity and total solids. Contains about 20% added water.

No. 26641, J-12. Sample of milk procured from Wm. Neibert, Dearborn R. F. D. No. 5. Below standard in specific gravity and total solids. Contains about 33% added water.

No. 26642, J-13. Sample of milk procured from Emil Lang, Dearborn. Below standard in specific gravity, total solids and butter fat. Contains about 35% added water.

No. 26687, P-687. Sample of milk procured from John McCurdy, Mason. Above the legal standard in specific gravity. Below the legal standard in butter fat and total solids. A part of the cream has been removed.

No. 26749, W-14. Sample of milk sold by Wm. Hofferbeth, Kalama-zoo. Sample contains about 19% added water.

No. 26938, E-26. Sample of milk procured from Chas. Ghitsas, (Sanitary Restaurant) Flint. Does not conform to the standard in specific gravity, butter fat and total solids. A part of the fat has been removed.



No. 27142, N-2. Sample of milk sold by Charles Hanky, St. Johns R. F. D. Below standard in specific gravity, butter fat and total solids. Contains about 18% added water.

No. 27157, N-4. Sample of milk sold by Geo. Patterson, Shepardsville. Below standard in butter fat and total solids.

No. 27158, N-5. Sample of milk sold by David Watson, Shepardsville. Below standard in butter fat and total solids.

No. 27191, P-744. Sample of milk produced by Harod Mitchell, Charlotte, and sold by J. W. Dobbin, Charlotte. Impure milk, contains visible dirt.

No. 27205, S-9. Sample of milk procured from Dan Rau. Below standard in specific gravity, butter fat and total solids. Contains about 28% added water.

No. 27237, P-749. Sample of milk procured from John Sharkey, Bellevue. Impure milk, contains visible dirt.

No. 27296, S-13. Sample of milk procured from I. E. Johns, Ransom. Below standard in specific gravity and total solids. Contains about 20% added water.

No. 27457, J-21. Sample of milk procured from Adolph Moers, Wayne. Below standard in specific gravity and total solids. Contains about 10% added water.

No. 27459, J-23. Sample of milk procured from James McCulley, Romulus. Contains an excessive amount of dirt.

No. 27460, J-24. Sample of milk procured from Charles Priestcorn, Wayne R. F. D. No. 3. Sample contains an excessive amount of visible dirt.

No. 27461, J-25. Sample of milk from Karl Schultz, Wayne R. F. D. No. 3. Sample contains an excessive amount of visible dirt.

No. 27462, J-26. Sample of milk from Frank Temple, Wayne. Below standard in specific gravity and total solids. Contains an excessive amount of visible dirt and about 25% added water.

No. 27463, J-27. Sample of milk procured from Wm. Dittmar, Wayne R. F. D. No. 3. Below standard in specific gravity and total solids. Contains an excessive amount of visible dirt and about 28% of added water.

No. 27474, J-19. Sample of milk procured from E. J. Blaksley, Orchard Lake R. F. D. No. 1. Below standard in specific gravity and total solids. Sample contains about 27% added water.

No. 27482, S-17. Sample of milk procured from W. H. Stallhood, Hillsdale R. F. D. Sample is below standard in butter fat and total solids. Contains an excessive amount of dirt and about 18% added water.

#### MINCE MEAT.

No. 26528, P-667. Sample of mince meat manufactured by Bazley Market Company, Battle Creek, sold by Orson Andre, Battle Creek, and procured from the Gartner Baking Co., Battle Creek. Sample contains little if any meat and is therefore not entitled to the name mince meat.

No. 26529, P-668. Sample of mince meat manufactured by Bazley Market Company, Battle Creek, sold by Orson Andre, Battle Creek and procured from the Gartner Baking Co., Battle Creek. Sample contains little if any meat and is therefore not entitled to the name of mince meat.

No. 26609, F-32. Sample of mince meat manufactured by the Ervin A. Rice Co., Chicago, Ill., and procured from B. A. Dise, Grand Rapids. Fermentative changes had started. Not fit for human consumption.

#### MIXED SUGAR.

Five samples of mixed sugars were examined. Four of these were found to be misbranded. The statute requires that when a sugar consists of part Maple Sugar and part some other sugar, the label should show the percentage of maple and the percentage of the other sugar. It is quite a custom among retailers to buy sugar that is a mixture of maple sugar and cane sugar and sell it for pure maple sugar. They are generally put up in one pound, one-half pound and one-fourth pound cakes, all packed in a box. This original box is generally properly labeled but when the retailer takes the material out of the box and piles it in the show case, the consumer is not informed that the material is a mixture of cane and maple sugar and often buys the product for pure maple sugar.

No. 26895, D-141. Sample of Sugar handled by Symons Bros., Saginaw, and procured from J. H. Kemp & Co., Unionville. Product is a mixture of maple sugar and a foreign sugar. No statement on the package showing percentage of ingredients other than maple.

No. 26961, D-154. Sample of Sugar handled by F. P. Reynolds & Co., Detroit, and procured from G. Strass & Sons, St. Clair. Product is a mixture of maple sugar and some other sugar. No statement on package showing percentage of ingredients other than maple.

No. 26973, D-160. Sample of Sugar sold by F. P. Reynolds & Co., Detroit, and procured from S. L. Smith, Marine City. Product is a mixture of maple sugar and some other sugar. No statement on package showing percentage of ingredients other than maple.

No. 27198, D-177. Sample of maple sugar cake sold by James Leighton, Bay City, and procured from John Ehlen, Bay City. Not a pure maple sugar.

#### MIXED SYRUP.

No. 27023, D-164. Sample of Premier Pancake Syrup manufactured by the Francis H. Leggitt Co., New York, and procured from J. J. Poole & Son, Algonac. Percentage of ingredients other than maple not stated on the label. Misbranded.

No. 27342, E-38. Sample of Webb's brand Cane and Maple Syrup sold by Puhl-Webb Co., Chicago, and procured from H. D. Loree, Ovid. Label does not show percentage of ingredients other than maple. Misbranded.

#### MUSTARD PREPARATIONS.

No. 26107, I-1806. Sample of Onopo Mustard Zest manufactured by S. C. Smith & Co., Cleveland, Ohio, and procured from Johnson & Wolcott, Morenci. Misbranded.

No. 26112, I-1808. Sample of Old Tavern Mustard sold by Berdan & Co., Toledo, Ohio, and procured from the Emporium Grocery, Adrian. Misbranded.

No. 26962, D-155. Sample of prepared mustard sold by the National Grocer Co., Port Huron, and procured from Jos. L. Meyers, St. Clair. Sample bears no label of any description.

## OLEOMARGARINE.

But very little Oleomargarine on the market is adulterated in the common meaning of the term. The 29 samples reported here were classed as illegal as they were sold in violation of the law.

No. 24578, F-404. Sample of oleomargarine procured from F. C. Luckner, St. Joseph. No sign displayed in store.

No. 26479, F-27. Sample of oleomargarine procured from D. C. Carlin, Greenville. No ingredient slips.

No. 26488, F-28. Sample of oleomargarine procured from Henry Freudenberg, 224 Michigan Ave., Grand Rapids. No ingredient slips used or sign displayed.

No. 26535, E-13. Sample of oleomargarine procured from Charles Joseph, 2811 Industrial Ave., Flint. No sign posted.

No. 26546, U-1. Sample of oleomargarine procured from A. F. Brooks, Highland Park. Oleomargarine artificially colored.

No. 26548, U-3. Sample of oleomargarine procured from Hill and Ward, Highland Park. No sign posted in dining room.

No. 26549, U-4. Sample of oleomargarine procured from E. Essed & Co., Highland Park. No sign posted in dining room.

No. 26559, E-19. Sample of oleomargarine procured from Applegate & Shepard, 1324 Detroit St., Flint. No sign displayed or ingredient slips used.

No. 26737, V-6. Sample of oleomargarine procured from Herman Meyers, 1635 Gratiot Ave., Detroit. Oleomargarine artificially colored.

No. 26754, E-23. Sample of oleomargarine procured from the Canada Railway News Co., Durand. No oleomargarine sign displayed.

No. 26756, F-36. Sample of oleomargarine procured from P. J. Hoekzema, Grandville. Legal sign not displayed in place of business.

No. 26823, F-37. Sample of oleomargarine procured from John H. Slenk, Grand Rapids. No sign displayed, no ingredient slips used and package not stamped.

No. 26850, I-25. Sample of oleomargarine procured from Harlan McFall, Adrian. No oleomargarine sign displayed.

No. 26907, P-700. Sample of oleomargarine procured from Lamb and Yarger, Battle Creek. No sign posted.

No. 26943, G-876. Sample of oleomargarine procured from Glass Block Store Co., Calumet. Legal sign not displayed.

No. 26953, F-39. Sample of oleomargarine procured from Geo. T. Tilma, Grand Rapids. No oleomargarine sign displayed.

No. 27167, P-737. Sample of oleomargarine procured from Grant Parent, Dowagiac. No sign displayed in place of business.

No. 27185, V-7. Sample of oleomargarine procured from Joseph A. Stoffel, 861 Mt. Elliott Ave., Detroit. No sign displayed in place of business.

No. 27186, V-8. Sample of oleomargarine procured from Carl R. Schumann, 173 Kercheval Ave., Detroit. No sign displayed in place of business.

No. 27247, Y-118. Sample of oleomargarine procured from L. C. Butler, 125 Farmer St., Detroit. No sign displayed in place of business.

No. 27289, F-53. Sample of oleomargarine procured from Harm Koenes, Grand Haven. No sign displayed in place of business.

No. 27290, F-54. Sample of oleomargarine procured from the Peoples

Mercantile Co., Grand Haven. No sign displayed in place of business.

No. 27291, F-55. Sample of oleomargarine procured from Botbyl Grocer Co., Grand Haven. No sign displayed in place of business.

No. 27292, F-56. Sample of oleomargarine procured from John Hoffman, Grand Haven. No sign displayed in place of business.

No. 27293, F-57. Sample of oleomargarine procured from J. J. Klausen & Co., Grand Haven. No sign displayed in place of business.

No. 27327, F-58. Sample of oleomargarine procured from L. F. Chubb, Lowell. No sign displayed in place of business.

No. 27330, I-58. Sample of oleomargarine procured from F. E. Russell, Jackson. No sign displayed in place of business.

No. 27353, F-59. Sample of oleomargarine procured from S. Gunn, Zeeland. No sign displayed in place of business.

No. 27354, U-9. Sample of oleomargarine procured from J. W. Goldman, Detroit. Sample is oleomargarine, correctly labeled. No sign displayed.

#### OLIVES.

No. 27132, E-33. Sample of olives sold by the National Grocer Co., Lansing, and procured from Sherman & Grettenberger, Perry. No label of any description on can.

#### OLIVE OIL.

Sixteen samples of Olive Oil were examined, eight of these were found to be adulterated or misbranded. Five of these samples, Nos. 25313, 25431, 25449, 25450 and 25451 were procured from the Hankow Tea Company in various cities throughout the state. This Company handles goods from the Direct Importing Company of Boston and their stores are scattered about the state. The adulteration of olive oil with Cottonseed Oil was quite a common thing in the past. However, in recent years but very little Olive Oil has been found to contain cottonseed oil, hence it was surprising to find the Direct Importing Company of Boston handling goods containing such a simple adulteration.

No. 25313, S-618. Sample of olive oil distributed by the Direct Importing Co., Boston, and procured from the Hankow Tea Co., Lansing. Not a pure olive oil. Adulterated.

No. 25431, P-579. Sample of olive oil distributed by the Direct Importing Co., Boston, and procured from the Hankow Tea Co., Battle Creek. Sample contains cottonseed oil as an adulterant.

No. 25449, S-638. Sample of olive oil distributed by the Direct Importing Co., Boston, and procured from the Hankow Tea Co., Grand Rapids. Sample contains cottonseed oil as an adulterant.

No. 25450, S-639. Sample of olive oil distributed by the Direct Importing Co., Boston, procured from the Hankow Tea Co., Detroit. Sample contains cottonseed oil.

No. 25451, S-640. Sample of salad oil distributed by the Direct Importing Co., Boston, and procured from the Hankow Tea Co., Detroit. Sample consists in part of cottonseed oil.

No. 25849, S-670. Sample of olive oil procured from Luige Figari, Detroit. Manufacturer's name not given. Misbranded.

No. 26676, G-872. Sample of olive oil procured from J. Vivian, Jr.,

Company, Laurium. Manufacturer's name and address not given. Misbranded.

No. 26879, I-29. Sample of olive oil sold by Harnet & Hewitt Co., Toledo, and procured from Colvin & Dean, Hillsdale. Misbranded.

#### OYSTERS.

Eighty-one samples of Oysters were examined during the year. Thirty-seven of these were classed as adulterated owing to the fact that they contained an excessive amount of water.

These were collected for the sole purpose of ascertaining the status of the oyster trade regarding the adulteration of oysters through the presence of an excessive amount of unabsorbed water.

There are two ways by which water may be added to oysters. One is by adding the water direct to the container or by placing a piece of ice in with the oysters and the other is by allowing the oysters after they are taken from the shipping can, to soak in water for several hours, then removing the oysters and allowing them to drain. This is often called "floating" or "soaking," and it gives the oyster a sleek fat appearance and increases the weight and volume considerably. Oysters are sometimes floated at the beds before removal from the shell. This is accomplished by allowing them to lay on racks or floats at the mouth of fresh water streams. Oysters that are "floated" either at the beds or after receipt by the jobber or dealer will generally show an excessive amount of unabsorbed water upon analysis.

There seems to have been no definite standard set for the amount of unabsorbed water permissible in oysters. That there would be some unabsorbed water in the best handled oysters and this amount would vary under different conditions are generally accepted facts. Owing to the lack of work along this line each state must set its own standard. The state of Maine requires that the percent of liquid drained from oysters should not exceed 17% when drained through a colander for 10 minutes. The Food Commissioner of Indiana has reported an experiment of an analysis of shell oysters, which shows an average of 19.86% of unabsorbed water in the samples. An analysis of 10 samples taken by myself from original unopened containers, just as they were shipped from the beds, was made in this Laboratory and the results show a maximum of 21.13% unabsorbed water, a minimum of 2.49% unabsorbed water, with an average of 10.39%. Therefore, it would seem that samples of oysters which show more than the above results would indicate an addition of water in one of the two ways previously mentioned.

No. 25538, S-648. Sample of oysters put up by A. E. Willson, Detroit, and procured from Lamkin Bros., Detroit. Contains about 10% excess water.

No. 25591, S-656. Sample of oysters put up by A. E. Willson, Detroit, and procured from Lamkin Bros., Detroit. Contains about 20% excess water.

No. 25730, S-669. Sample of oysters put up by Sterling Bros., Detroit, and procured from Library Tea Co., Detroit. Contains an excessive amount of water.

No. 25754, S-674. Sample of oysters put up by the Willson Oyster

Co., Detroit, and procured from A. W. Schneider, Detroit. Contains an excessive amount of water.

No. 25755, S-675. Sample of oysters put up by the Willson Oyster Co., Detroit, and procured from A. W. Schneider, Detroit. Contains an excessive amount of water.

No. 25756, S-676. Sample of oysters put up by Willson Oyster Co., Detroit, and procured from Streit Bros., 487 Gratiot Ave., Detroit. Contains an excessive amount of water.

No. 25822, S-680. Sample of oysters sold by Willson Oyster Co., Detroit, and procured from Louis Solomon, Detroit. Contains an excessive amount of water.

No. 25823, S-681. Sample of oysters put up by Willson Oyster Co., Detroit, and procured from L. Solomon, Detroit. Contains an excessive amount of water.

No. 25824, S-682. Sample of oysters put up by Hamblen & Ayer, Detroit, and procured from L. Solomon, Detroit. Contains an excessive amount of water.

No. 25825, S-683. Sample of oysters put up by Sterling Bros., Detroit, and procured from W. S. Carrol, 225 Brush St., Detroit. Contains an excessive amount of water.

No. 25828, S-686. Sample of oysters sold by Willson Oyster Co., Detroit, and procured from D. S. Burton, Detroit. Contains an excessive amount of water.

No. 25829, S-687. Sample of oysters sold by Willson Oyster Co., Detroit, and procured from J. T. Michael, Detroit. Contains an excessive amount of water.

No. 25830, S-688. Sample of oysters sold by Sterling Bros., Detroit, and procured from James T. Michael, Detroit. Contains an excessive amount of water.

No. 25831, P-605. Sample of oysters sold by the Leib Packing Co., Baltimore, and procured from Freeland & Vedder, Battle Creek. Sample contains an excessive amount of water.

No. 25832, P-606. Sample of oysters sold by Leib Packing Co., Baltimore, and procured from Freeland & Vedder, Battle Creek. Contains an excessive amount of water.

No. 25833, P-607. Sample of oysters sold by Leib Packing Co., Baltimore, and procured from Robert Melrose, Battle Creek. Contains an excessive amount of water.

No. 25839, W-4. Sample of oysters sold by E. A. Smith & Co., Baltimore, and procured from E. F. Flaischhauer, Kalamazoo. Contains an excessive amount of water.

No. 25840, W-5. Sample of oysters sold by Geo. M. Roberts & Son, Baltimore, and procured from W. H. Moerdyke, Kalamazoo. Contains an excessive amount of water.

No. 25843, W-8. Sample of oysters sold by E. A. Smith & Co., Baltimore, and procured from Van Der Brook Bros., Kalamazoo. Contains an excessive amount of water.

No. 25851, V-331. Sample of oysters procured from Feldspausch & Fedewa, Hastings. Contains an excessive amount of water.

No. 25864, P-616. Sample of oysters procured from Frickey & Adams, Battle Creek. Contains an excessive amount of water.

No. 25866, P-618. Sample of oysters sold by Geo. M. Roberts & Co., Baltimore, and procured from Moon & Aldrich, Battle Creek. Contains an excessive amount of water.

No. 25874, P-626. Sample of oysters sold by Geo. M. Roberts & Co., Baltimore, and procured from S. J. Freed, Battle Creek. Contains an excessive amount of water.

No. 25891, N-174. Sample of oysters sold by Chas. Neubert & Son, Baltimore, and procured from Bonnarito Bros., Saginaw. Contains an excessive amount of water.

No. 25892, N-175. Sample of oysters sold by C. Henning & Son, Saginaw, and procured from Charles Suley, Saginaw. Contains an excessive amount of water.

No. 25898, N-181. Sample of oysters procured from Joseph Navarro, 118 N. Washington, Saginaw. Contains an excessive amount of water.

No. 25900, N-183. Sample of oysters sold by Dormer Fish Co., Bay City, and procured from James Brennan, Bay City. Contains an excessive amount of water.

No. 25902, N-185. Sample of oysters sold by Chas. Neubert & Co., Baltimore, and procured from A. Nord, Bay City. Contains an excessive amount of water.

No. 25903, N-186. Sample of oysters sold by Hammond, Standish Co., Bay City, and procured from Dean Bros., Bay City. Contains an excessive amount of water.

No. 25904, N-187. Sample of oysters procured from Arthur Moon, Bay City. Contains an excessive amount of water.

No. 25905, N-188. Sample of oysters sold by Powers & Kessler, Bay City, and procured from John Meyers, Bay City. Contains an excessive amount of water.

No. 25984, S-698. Sample of oysters sold by Planters Trading Co., Baltimore, and procured from D. Levy & Sons, Detroit. Contains an excessive amount of water.

No. 26059, G-857. Sample of oysters sold by Coventry & Co., Duluth, and procured from Samuel P. Payne, Hancock. Contains an excessive amount of water.

No. 26171, G-862. Sample of oysters sold by Pentecost Bros., Chicago, Ill., and procured from Wm. Gamble, Houghton. Contains an excessive amount of water.

No. 26214, P-648. Sample of oysters sold by Leib Packing Co., Baltimore, and procured from Hobbs Bros., Battle Creek. Contains an excessive amount of water.

No. 26215, P-649. Sample of oysters put up by J. H. Rose Co., Lansing, and procured from Newton Blake, Lansing. Contains an excessive amount of water.

No. 26426, D-46. Sample of oysters sold by J. G. Hamblen, Detroit, and procured from T. J. Minnie, Yale. Contains an excessive amount of water.

#### PEPPER.

No. 24695, S-590. Sample of pepper manufactured for the Valley City Coffee & Spice Mills and procured from J. F. Knapp & Son, Eaton Rapids. Above standard in ash content.

## PICKLES.

No. 26335, F-16. Sample of onion pickles put up by Wm. Van Allen, 524 Sheldon St., Grand Rapids. Contains saccharin.

No. 26352, F-18. Sample of pickled beets put up by Wm. Van Allen, Grand Rapids. Contain saccharin.

No. 26353, F-19. Sample of mustard pickles put up by Wm. Van Allen, Grand Rapids. Contain saccharin.

No. 26398, F-24. Sample of sweet pickles put up by C. S. Walker, Grand Rapids. Contain saccharin, also benzoic acid or salts thereof with no statement on the label to indicate its presence.

No. 26399, F-25. Sample of mustard pickles put up by C. S. Walker, Grand Rapids. Contains saccharin, also benzoic acid or salts thereof with no statement on the label to indicate its presence.

No. 26511, F-31. Sample of Pickles manufactured by J. S. Walker, Muskegon, and procured from Anderson Bros., Grand Rapids. Contain saccharin. Not salable.

## PRESERVATIVES.

No. 24699, S-594. Sample of "Konservierung's Salz" manufactured by B. Heller Chemical Co., Chicago, and procured from Hodgkinson & Johnson, Charlotte. A preservative salt containing boric acid. Not permissible in food products.

No. 25838, P-609. Sample of Freese-em procured from Ira Meyers, Kalamazoo. Contains sodium sulphite, a substance not permissible in food products.

No. 26111, I-1807. Sample of Special 77 Preservaline manufactured by The Preservaline Manufacturing Co., Brooklyn, N. Y., and procured from Ben Peavey, Adrian. Contains sodium benzoate not stated on the label.

No. 26607, P-678. Sample of Special 77 Preservaline manufactured by the Preservaline Mfg. Co., Brooklyn, N. Y., and procured from C. Luyendyk, Kalamazoo. Sample contains benzoic acid, sulphurous acid or salts thereof. Not permissible in food products.

No. 27151, G-888. Sample of XXX Enterprise Preservative manufactured by the Heller Chemical Co., Chicago, Ill. Sample is a mixture of sodium sulphite and potassium nitrate. Not permissible in food products.

## PROCESS BUTTER.

No. 26556, E-17. Sample of process butter procured from R. J. Jobson, 1210 Ann Arbor St., Flint. Package not stamped.

No. 26919, P-704. Sample of process butter procured from Fuller-Kirtland Co., Jackson. Package not stamped.

## SUGAR BUTTER.

No. 25648, S-665. Sample of Sugar Butter manufactured by the Van Wormer Pure Food Co., Detroit, and procured from Peter Smith & Sons Co., Detroit. Misbranded.

No. 26266, E-4. Sample of Cane and Maple Sugar Butter manufactured by the Marshalltown Syrup & Sugar Co., Marshalltown, Ia., hand-



led by C. Elliot & Co., Detroit, and procured from Sherman & Grettenberger, Perry. Misbranded in that percentage of ingredients other than maple are not stated on the label.

#### SYRUPS.

Thirteen samples of syrups were examined; five of these were misbranded. Sample No. 26499 is explained in one of the departments weekly bulletins and appears in another part of this bulletin.

No. 25206, I-1686. Sample of Snow Drift Syrup manufactured by the Union Starch Refining Co., Edinburg, Ind., handled by W. A. Bartley, Toledo, Ohio, and procured from Andrew Murray, Monroe. Misbranded.

No. 25239, I-1692. Sample of Corn Syrup manufactured by the J. C. Hubinger Bros., New Haven, Conn., handled by Harnit & Hewitt, Toledo, and procured from W. F. Weisenger & Son, Deerfield. Misbranded.

No. 25414, I-1704. Sample of Table Syrup sold by the Feilbach Co., Toledo, Ohio, and procured from R. W. Boyd & Co., Adrian. Misbranded.

No. 26066, I-1804. Sample of corn syrup manufactured by the Corn Products Co., New York, handled by Overmyer Co., Toledo, and procured from G. W. Wenzel, Adrian. Misbranded.

No. 26499, F-30. Sample of Pride of Michigan Syrup procured from A. L. Crawford, 1058 N. Ottawa St., Grand Rapids. Sample consists entirely of a cane or beet syrup flavored to imitate genuine maple syrup. Sold as pure maple syrup.

#### TURPENTINE.

This Department is charged with the enforcement of the turpentine law. Like the linseed oils the majority of the turpentines examined contained mineral oil as an adulterant and came from Cleveland, Ohio. Of the six samples analyzed, five of them were adulterated.

No. 26976, G-884. Sample of turpentine manufactured by the Southern States Turpentine Co., Cleveland, Ohio, and procured from the Tamarack Cooperative Association, Calumet. Not a pure turpentine, adulterated with a mineral oil.

No. 27015, I-38. Sample of "Pure Turpentine" manufactured by the Southern States Turpentine Co., Cleveland, Ohio, and procured from R. F. Fitzsimmons, Jackson. Sample contains about 21% mineral oil.

No. 27147, K-187. Sample of Zenith Spirits Turpentine manufactured by N. Z. Graves Co., Philadelphia, Pa., and procured from N. Z. Graves Co., 57 E. Woodbridge St., Detroit. Sample contains no turpentine and is a mixture of a mineral oil and some unidentified oil.

No. 27453, G-897. Sample of Turpentine manufactured by the Southern States Turpentine Co., Cleveland, Ohio, and procured from J. P. and G. H. Peterman, Mohawk, Keweenaw County. Sample contains 19% mineral oil.

No. 27455, G-899. Sample of Turpentine manufactured by the Southern States Turpentine Co., Cleveland, Ohio, and procured from Morgan & Grierson, Ahmeek. Sample contains 18.7% mineral oil.

## VINEGAR.

Thirty-nine samples of vinegar were examined. Ten of these were found to be adulterated or misbranded. Michigan is one of the largest apple growing states, so naturally considerable vinegar is manufactured here. The old law required that apple vinegar should contain not less than 1.75% total solids, 4% acetic acid and .25% ash. When vinegar was made by the old process, that is by storing it in barrels and allowing it to go over into vinegar as it aged, this standard would hold good. However, with the new process, called the quick process of vinegar making, the standards were often a hardship. Therefore, at the last session of the legislature, the Act was amended, the standards were removed from the body of the law, with the exception of the 4% acid standard, and various kinds of vinegar defined. Competition in the vinegar industry is very keen. Consequently, there is great temptation to adulterate. This is usually accomplished by first reducing a vinegar of high acid strength with water, then adding distilled vinegar to bring up the acidity, finally adding more substance such as boiled cider or apple jelly and a mineral substance to bring the solids and ash back to that required by law. The final product often contains only 50% pure cider vinegar, while the rest is composed of the above materials. The whole is then branded "Pure Cider Vinegar" and sold to the unsuspecting public.

No. 25124, I-1684. Sample of cider vinegar procured from Cogan & Metty, Erie. Below standard in total solids and acidity.

No. 25270, U-313. Sample of "Pure Cider Vinegar" manufactured by Wm. W. Vaughan Co., Detroit, and procured from Geo. Masrob, Detroit. Not a pure cider vinegar but consists wholly or in part of a dilute acetic acid or distilled vinegar and foreign mineral matter in imitation of genuine cider vinegar.

No. 25306, I-1695. Sample of cider vinegar manufactured and sold by J. S. Rodgers, Adrian. Below standard in total acidity.

No. 25386, S-630. Sample of cider vinegar manufactured by Green-slade Oil Co., and procured from M. A. Whittemore, Milford. Sample consists wholly or in part of a mixture of dilute acetic acid or distilled vinegar, foreign material high in reducing sugars and added mineral matter in imitation of genuine cider vinegar.

No. 25514, S-646. Sample of Amber brand distilled vinegar manufactured by the Michigan Sugar Co., Saginaw, and procured from Lee and Cady, Saginaw. Product is distilled vinegar artificially colored with a coal tar dye.

No. 26165, G-859. Sample of cider vinegar handled by Roach & Seeber, Calumet, and procured from Glass Bros., Ahmeek. Below standard in solids, acidity and ash. Contains coloring matter foreign to cider vinegar. Not a pure cider vinegar.

No. 26166, G-860. Sample of cider vinegar handled by Roach & Seeber, Calumet, and procured from Glass Bros., Ahmeek. Below standard in solids, acidity and ash. Contains coloring matter foreign to cider vinegar. Not a pure cider vinegar.

No. 26629, I-16. Sample of Tourist brand cider vinegar manufactured by Wm. W. Vaughan, Detroit. A sample of cider vinegar which has been diluted with water and contains foreign material high in mineral matter in imitation of genuine cider vinegar.

No. 26632, I-19. Sample of cider vinegar manufactured by E. L. Selleck, Manitou Beach. Below standard in acidity.

No. 26793, D-126. Sample of Oakland Apple Vinegar manufactured by the Oakland Vinegar Co., Saginaw. A sample of cider vinegar which has been diluted with water and contains foreign material high in mineral matter in imitation of genuine cider vinegar.

## CONCENTRATED COMMERCIAL FEEDING STUFFS.

### THE LAW.

Any manufacturer, company, person or persons who shall sell, offer or expose for sale or for distribution, in this State, any concentrated commercial feeding stuffs used for feeding live stock, shall furnish with each car, or other amount shipped in bulk, and shall affix to every package of such feeding stuff, in a conspicuous place, on the outside thereof, a plainly printed statement, clearly and truly certifying the number of net pounds in the car or package sold or offered for sale, the name or trademark under which the article is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business, and a chemical analysis, stating the percentages it contains of crude protein, crude fibre, nitrogen-free extract and ether extract, all constituents to be determined by the methods adopted by the association of official agricultural chemists. Whenever any feeding stuff is sold at retail, in bulk or in packages belonging to the purchaser, the agent or dealer shall furnish to him a certified copy of the chemical analysis named in this section.

(a) The term concentrated commercial feeding stuffs as used in this act shall include linseed meal, cotton seed meal, pea meals, cocoanut meals, gluten meals, oil meals of all kinds, gluten feeds, maize feeds, starch feeds, mixed sugar feeds, hominy feeds, rice meals, oat feeds, corn and oat feeds, meat meals, dried blood, clover meals, mixed feeds of all kinds, slaughter house waste products also all condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended for feeding to domestic animals: Provided, That such feeding stuffs, as defined above, shall not include hays, straws, fodders, ensilage, the whole seeds nor the unmixed meals made directly from the entire grains of wheat, rye, barley, oats, flax-seed, maize, buckwheat, wet brewers' grains, malt sprouts, wet or dried beet pulp, when unmixed with other materials. Neither shall it include wheat, rye and buckwheat brans or middlings not mixed with other substances, but sold separately as distinct articles of commerce, nor pure grains ground together.

(b) Before any manufacturer, company, person or persons shall sell, offer or expose for sale in this State any concentrated commercial feeding stuff, he or they shall, for each and every feeding stuff bearing a distinguishing name or trade-mark file annually, with the Dairy and Food Commissioner a certified copy of the chemical analysis and certificate referred to in this section, and shall deposit with said Dairy and Food Commissioner a sealed glass jar, or bottle, containing at least one

pound of the feeding stuff to be sold or offered for sale, together with an affidavit that it is a fair sample of the article thus to be sold or offered for sale. He or they shall also pay annually into the State treasury a license fee of twenty dollars for each and every brand of feeding stuff he offers or exposes for sale in this State. Said fee is to be paid on or before April first of each year: Provided, That whenever the manufacturer or importer shall have paid this license fee, his agents shall not be required to do so. Whenever any manufacturer, importer, agent or seller of any commercial feeding stuff desires at any time to sell such material and has not paid the license fee therefor, he shall pay the license fee prescribed in this section, before making any such sale. The money collected under the provisions of this act shall be paid into the State treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner, in addition to the regular appropriation therefor.


(c) Whenever the manufacturer, importer agent or seller of any commercial feeding stuff shall have complied with the requirements of this section the Dairy and Food Commissioner shall issue or cause to be issued, a license permitting the sale of such feeding stuff, which license shall terminate on April first following the date of issue.

(d) All such analyses of commercial feeding stuffs required by this act, shall be made under the direction of the Dairy and Food Commissioner, and shall be paid for out of the funds arising from the license fees provided for in this section.

(e) The Dairy and Food Commissioner shall publish, or cause to be published in bulletin form, at least annually a correct statement of all analyses made, together with any incidental information concerning same which he may deem proper.

(f) Any manufacturer, importer, company, agent, person or persons, who shall sell, offer or expose for sale, without first complying with the provisions of this act, any commercial feeding stuff, or shall attach or cause to be attached to any car, package or other quantity of said feeding stuff, an analysis stating that it contains a larger percentage of any one or more of the constituents named in this section than it really does contain shall, upon conviction thereof, be fined not less than one hundred dollars for the first offense, and not less than three hundred dollars for every subsequent offense, and the offender shall also be liable for damages sustained by the purchaser of such feeding stuff on account of such misrepresentation.

(g) The Dairy and Food Commissioner, by any duly authorized agent, is hereby authorized to select from any package of commercial or other feeding stuff exposed or offered for sale in this State, a quantity not exceeding two pounds for a sample, such sample to be used for the purposes of an official analysis and for comparison with the certificate filed with the Dairy and Food Commissioner, and with the certificate affixed to the package on sale.



TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).

License No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
1301	American Maize Oil Refining Co., Indianapolis, Ind.	Maisius Germ Oil Meal.	Guaranteed Found.	18.00	4.50	53.00	8.00
1302	The Omaha Alfalfa Milling Co., Omaha, Neb.	Green Meadow Dairy Feed.	Guaranteed Found.	11.00	25.00	43.00	1.00
1303	The Omaha Alfalfa Milling Co., Omaha, Neb.	Perfection Horse Feed.	Guaranteed Found.	11.38	16.06	51.22	.83
1304	Swift & Co., Chicago, Ill.	Swift's Meat Scraps.	Guaranteed Found.	10.06	12.00	55.00	2.00
1305	Swift & Co., Chicago, Ill.	Swift's Digestor Tankage.	Guaranteed Found.	10.86	11.06	61.02	2.72
1306	Swift & Co., Chicago, Ill.	Swift's Meat Meal.	Guaranteed Found.	50.00		8.00	12.90
1307	Swift & Co., Chicago, Ill.	Swift's Blood Meal.	Guaranteed Found.	51.19		8.00	
1308	Harrison-Johnson Co., Toledo, Ohio.	Anchor Brand Developing Feed.	Guaranteed Found.	80.00		10.00	
1309	Harrison-Johnson Co., Toledo, Ohio.	Anchor Brand Scratch Feed.	Guaranteed Found.	46.00			
1310	Harrison-Johnson Co., Toledo, Ohio.	Anchor Brand Chick Feed.	Guaranteed Found.	87.00			
1311	Pratt Food Co., Philadelphia & Chicago.	Pratt's Baby Chick Food.	Guaranteed Found.	11.00	3.00		3.00
1312	The Dewey Bros. Co., Blanchester, Ohio.	Eagle Three D Grains.	Guaranteed Found.	11.00	3.90	67.46	4.00
1313	Sulzberger & Sons Co., Chicago, Ill.	Sulzberger's High Protein Tankage.	Guaranteed Found.	9.28	1.06		3.10
1314	International Sugar Feed Co., Minneapolis, Minn.	International Dairy Feed.	Guaranteed Found.	11.00	3.00	63.25	2.86
1315	International Sugar Feed Co., Minneapolis, Minn.	International Special Dairy Feed.	Guaranteed Found.	13.00	3.00	62.00	5.00
				12.51	.52	66.52	2.75
				30.00	13.00	30.00	10.00
				30.68	13.06	35.94	12.70
				60.00	1.00		8.00
				52.59			9.80
				18.00	12.00		3.50
				14.00	12.00		3.50

1316	The Commercial Milling Co., Detroit, Mich.	Henkel's Coarse P-corn Feed.....	Guaranteed Found.....	15.00 15.06	8.00 8.15	..... 57.51	4.00 4.26
1317	The Commercial Milling Co., Detroit, Mich.	Henkel's Chop Feed.....	Guaranteed Found.....	8.00 8.46	8.00 5.35	..... 66.23	5.00 4.96
1318	The Commercial Milling Co., Detroit, Mich.	Henkel's Coarse Feed Corn Meal.....	Guaranteed Found.....	8.50 8.66	2.00 66	..... 76.89	3.50
1319	The Commercial Milling Co., Detroit, Mich.	Henkel's Fine White Feed.....	Guaranteed Found.....	15.00 15.22	4.00 4.55	..... 61.53	3.50 4.19
1320	Postum Cereal Co., Ltd., Battle Creek, Mich.	G-N Feed.....	Guaranteed Found.....	9.00 11.20	2.50 1.35	63.00 75.90	1.00 1.50
1321	Postum Cereal Co., Ltd., Battle Creek, Mich.	Cereal Feeding Stuff.....	Guaranteed Found.....	11.00 11.90	18.00 10.45	52.00 64.92	1.75 2.40
1322	Postum Cereal Co., Ltd., Battle Creek, Mich.	Flaked Corn.....	Guaranteed Found.....	8.00 8.23	5.00 1.80	70.00 75.95	1.00 3.02
1323	Postum Cereal Co., Ltd., Battle Creek, Mich.	Barley Bran.....	Guaranteed Found.....	6.00 6.56	23.00 18.50	53.00 63.04	1.25 2.10
1324	Amendt Milling Co., Monroe, Mich.	Amco Scratch Grain.....	Guaranteed Found.....	9.54 9.10	4.30 4.27	68.51 60.97	2.40 2.40
1325	Amendt Milling Co., Monroe, Mich.	Amco No. 2 Chop Feed.....	Guaranteed Found.....	7.87 9.45	10.95 6.05	64.62 67.55	3.93 4.90
1326	Amendt Milling Co., Monroe, Mich.	Amco Chick Feed.....	Guaranteed Found.....	9.19 9.23	4.00 2.02	66.75 66.96	2.50 2.50
1327	Lignum Chemical Co., Marinette, Wis.	Bastol Meal.....	Guaranteed Found.....	4.00 4.97	32.00 23.88	52.00 35.28	2.00 2.30
1328	Lignum Chemical Co., Marinette, Wis.	Bastol Dairy Meal.....	Guaranteed Found.....	11.00 11.64	20.00 20.10	56.00 46.16	4.00 4.05
1329	Grand Rapids Grain & Milling Co., Grand Rapids, Mich.	Purity Starch Feed.....	Guaranteed Found.....	9.54	2.85	70.61	3.60
1330	Douglas & Co., Cedar Rapids, Iowa.	Cedar Rapids Gluten Feed.....	Guaranteed Found.....	23.00 20.91	8.00 6.00	58.00 61.89	2.00 2.35
1331	Christian Breisch & Co., Lansing, Mich.	Plymouth Rock Scratch Feed.....	Guaranteed Found.....	11.00 9.98	7.30 2.25	65.50 67.12	2.30 3.17
1332	Christian Breisch & Co., Lansing, Mich.	White Rock Chick Feed.....	Guaranteed Found.....	9.93	1.90	66.27	3.45

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturer and address.	Brand.	Protein. Per cent.	Crude fiber. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1333	Fairfield & Kolvoord, Allegan, Mich.	Mixed Feed.....	10.76 10.41	3.55 3.75	71.39 73.71	3.28 2.95
1334	Grand Rapids Brewing Co., Grand Rapids, Mich.	"Dried Brewer's Grains".....	28.37	13.50	37.78	7.50
1335	The Albert Dickinson Co., Chicago and Minneapolis.	Globe Scratch Feed.....	10.00 10.76	5.00 2.10	60.00 70.72	2.50 2.70
1336	The Albert Dickinson Co., Chicago and Minneapolis.	Pine Tree Scratch Feed.....	10.00 10.06	5.00 2.15	60.00 68.82	2.50 3.25
1337	The Albert Dickinson Co., Chicago and Minneapolis.	Crescent Chick Feed.....	10.00 9.63	5.00 1.95	60.00 66.73	2.50 2.93
1338	The Albert Dickinson Co., Chicago and Minneapolis.	Sun Chick Starter.....	10.00 11.29	5.00 2.23	60.00 68.90	2.50 2.50
1339	The Albert Dickinson Co., Chicago and Minneapolis.	Colonial Developing Feed.....	10.00 9.23	5.00 1.55	60.00 67.13	2.50 2.60
1340	The Albert Dickinson Co., Chicago and Minneapolis.	King Pigeon Feed.....	10.00 11.20	5.00 2.90	60.00 67.56	2.50 3.12
1341	The Albert Dickinson Co., Chicago and Minneapolis.	Queen Poultry Mash.....	11.00 8.84	10.00 5.50	60.00 63.62	2.50 2.59
1342	The Albert Dickinson Co., Chicago and Minneapolis.	Alfalfa Meal.....	12.00 14.00	35.00 29.95	35.00 36.72	1.00 1.65
1343	The Albert Dickinson Co., Chicago and Minneapolis.	White Cross Scratch Feed.....	10.00	5.00	60.00	2.50
1344	The Albert Dickinson Co., Chicago and Minneapolis.	White Cross Chick Feed.....	10.00 9.10	5.00 2.40	60.00 64.03	2.50 2.76
1345	The Albert Dickinson Co., Chicago and Minneapolis.	White Cross Stock Feed.....	10.00	10.00	60.00	3.00
1346	A. L. Hibbard, Sturgis, Mich.	No. 1 Chop.....	8.84	4.75	71.05	4.30
1347	Joseph Schlitz Brewing Co., Milwaukee, Wis.	Schlitz Purely Dried Grains.....	24.00 24.76	16.00 16.10	40.00 43.99	6.00 5.95

1348	Wm. Fluemer, Mt. Clemens, Mich.	Fluemer's Chicken Feed.	Guaranteed Found.	10.50 10.50	4.55 2.06	12.30 71.04	3.15 2.91
1349	King Milling Co., Lowell, Mich.	King Corn and Oat Feed.	Guaranteed Found.	10.06	5.40	65.09	6.63
1350	King Milling Co., Lowell, Mich.	King Corn Meal.	Guaranteed Found.	9.54	3.60	66.99	7.39
1351	Cheboygan Flour Mill Co., Cheboygan, Mich.	Corn Germ Meal.	Guaranteed Found.	9.27	3.02	69.48	6.62
1352	Cheboygan Flour Mill Co., Cheboygan, Mich.	Highland Scratch Feed.	Guaranteed Found.	10.59	4.78	68.87	3.27
1353	Haukey Milling Co., (Inc.), Potosky, Mich.	"Corn Meal"	Guaranteed Found.	9.71	3.37	70.24	5.82
1354	The Metzger Seed & Oil Co., Toledo, Ohio.	Old Process Oil Meal.	Guaranteed Found.	30.00 31.58	10.00 6.98	38.59	5.00 7.66
1355	The Smith Calf Meal Co., Eaton Rapids, Mich.	Improved German Calf Meal.	Guaranteed Found.	23.00 23.71	5.00 2.10	55.00 61.09	3.00 3.10
1356	Northrup-King & Co., Minneapolis, Minn.	Sterling Baby Chick Starter.	Guaranteed Found.	12.25	4.51	61.87	2.70
1357	Northrup-King & Co., Minneapolis, Minn.	Sterling Chick Feed.	Guaranteed Found.	12.25	4.51	61.87	2.70
1358	Northrup-King & Co., Minneapolis, Minn.	Sterling Hen Feed.	Guaranteed Found.	11.87	4.61	65.06	3.42
1359	Spratt's Patent (America) Ltd., Newark, N. J.	Ground Meat.	Guaranteed Found.	43.00	2.00	11.00	11.00
1360	Spratt's Patent (America) Ltd., Newark, N. J.	Poultry Food No. 3.	Guaranteed Found.	20.00 19.28	2.00 .55	65.75	3.50 2.55
1361	Huron Milling Co., Harbor Beach, Mich.	Jenks Gluten Feed.	Guaranteed Found.	23.00 23.80	8.00 7.62	52.00 54.68	3.00 5.63
1362	Huron Milling Co., Harbor Beach, Mich.	Mixed Feed.	Guaranteed Found.	12.18 13.91	5.85 6.65	68.32 62.94	4.60 4.20
1363	The Sherwin-Williams Co., Cleveland, Ohio.	S-W Linseed Oil Meal.	Guaranteed Found.	33.00 33.77	8.00 7.05	38.36	6.00 6.47
1364	Star of the West Milling Co., Frankenthuth, Mich.	"Special Feed"	Guaranteed Found.	8.57 9.19	8.97 9.55	67.27 67.48	3.65 3.70



TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturer and address.	Brand.		Protein. Per cent.	Crude fibre. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1365	East St. Louis Cotton Oil Co., National Stock Yards, Ill.	Illinois Brand Choice Cotton Seed Meal	Guaranteed Feed	41.50 42.00	11.00 5.30	26.00 29.55	7.00 8.86
1366	Quaker Oats Co., Chicago, Ill.	Schumacher Stock Feed.	Guaranteed Feed	10.00	10.00	60.00	3.25
1367	Quaker Oats Co., Chicago, Ill.	Victor Feed	Guaranteed Feed	8.00	12.00	62.00	3.00
1368	Quaker Oats Co., Chicago, Ill.	American Hen Scratching Grains.	Guaranteed Feed	10.00 9.98	5.00 2.35	60.00 65.94	2.50 3.58
1369	Quaker Oats Co., Chicago, Ill.	Schumacher Little Chick Feed.	Guaranteed Feed	10.00 10.06	5.00 1.66	60.00 66.64	2.50 2.62
1370	Quaker Oats Co., Chicago, Ill.	Old Tavern Scratch Feed.	Guaranteed Feed	10.00 10.41	5.00 4.30	60.00 66.23	2.50 3.90
1371	Quaker Oats Co., Chicago, Ill.	Old Tavern Chick Feed.	Guaranteed Feed	10.00	5.00	60.00	2.50
1372	Quaker Oats Co., Chicago, Ill.	Schumacher Scratching Grains.	Guaranteed Feed	10.00 11.11	5.00 1.93	60.00 66.38	2.50 3.70
1373	Quaker Oats Co., Chicago, Ill.	Quaker Molasses Dairy Feed.	Guaranteed Feed	16.00 16.19	14.00 15.55	50.00 47.51	3.50 4.75
1374	Quaker Oats Co., Chicago, Ill.	Schumacher Calf Meal.	Guaranteed Feed	19.00 14.96	3.00 1.40	54.00 63.74	8.00 7.12
1375	S. P. Davis, Little Rock, Ark.	Good Luck Brand Cotton Seed Meal	Guaranteed Feed	41.00	10.50	6.50	7.00
1376	The Park & Pollard Co., Boston, Mass.	Red Ribbon Chick Feed	Guaranteed Feed	10.00	5.00		3.50
1377	The Park & Pollard Co., Boston, Mass.	Gritless Chick Feed	Guaranteed Feed	10.00	5.00		2.77
1378	The Park & Pollard Co., Boston, Mass.	Growing Feed.	Guaranteed Feed	10.00	5.00		3.50
1379	The Park & Pollard Co., Boston, Mass.	Scratch Feed.	Guaranteed Feed	10.00	5.00		

## DAIRY AND FOOD COMMISSION.

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		Dry Mash.	Guaranteed Found.	20.00	10.00	3.00
1380	The Park & Pollard Co., Boston, Mass.					
1381	The Sugarcane Co., Chicago, Ill.	Sugarcane Dairy Feed	Guaranteed Found.	16.50	12.00	3.50
1382	Western Grain Products Co., Hammond, Ind.	Hammond Horse Feed	Guaranteed Found.	12.00 11.99		2.80 2.80
1383	Western Grain Products Co., Hammond, Ind.	Hammond Dairy Feed	Guaranteed Found.	16.50 17.94	11.00 11.10	2.50 4.40
1384	American Milling Co., Chicago, Ill.	Sucrose Dairy Feed	Guaranteed Found.	16.50 18.58	12.00 11.10	3.50 4.90
1385	American Milling Co., Chicago, Ill.	Sucrose Horse & Mule Feed	Guaranteed Found.	10.00	12.00	2.50
1386	Thunder Bay Milling Co., Alpena, Mich.	Coarse Corn Meal	Guaranteed Found.	7.87	1.85	2.70
1387	Ralston Purina Co., St. Louis, Mo.	Purina Mill Feed Scratch Size	Guaranteed Found.	11.00 10.32	4.00 2.20	3.90 3.48
1388	Ralston Purina Co., St. Louis, Mo.	Purina Mill Feed Chick Size	Guaranteed Found.	11.00 10.41	4.00 1.90	3.90 3.15
1389	Illinois Feed Mills, St. Louis, Mo.	Feed-Well Mill Feed, Chick Size	Guaranteed Found.	10.00 9.71	6.00 2.20	3.90 3.70
1390	Carl C. Wright, Owosso, Mich.	Occident Chick Feed	Guaranteed Found.	8.93 8.83	2.75 3.00	2.08 2.38
1391	Carl C. Wright, Owosso, Mich.	Wright's Scratch Feed	Guaranteed Found.	8.75 10.24	3.57 4.10	2.94 3.25
1392	Midland Lined Products Co., Minneapolis, Minn.	Midland Brand Pure Old Process Ground Lined Oats	Guaranteed Found.	32.00 32.11	8.50 7.78	6.00 6.08
1393	West Branch Flour Mfg. Co., West Branch, Mich.	Street Car Feed	Guaranteed Found.	9.15	3.62	4.58
1394	The Buckeye Cotton Oil Co., Cincinnati, Ohio	Buckeye Cotton Seed Meal	Guaranteed Found.	38.50 36.58	12.00 9.98	6.50 10.92
1395	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ind.)	Chico Brand Chick Feed	Guaranteed Found.	10.00	5.00	2.50
1396	Sprague-Warner & Co., Chicago, Ill. (Quaker Oats Co., Chicago, Ind.)	Caro Brand Poultry Feed	Guaranteed Found.	10.00	5.00	2.50

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

Lot or No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
1397	The Guy G. Major Co., Toledo, Ohio.....	Old Process Oil Meal.....	Guaranteed Found.....	30.00 30.94	10.00 3.60	44.47	8.67
1398	National Food Co., Fond du Lac, Wis.....	No-Milk Calf Food.....	Guaranteed Found.....	17.25	5.00		
1399	Hirst & Begley Linsced Co., Chicago, Ill.....	Hirst & Begley Brand Ground Linsced Cake.	Guaranteed Found.....	34.00 33.86	9.00 6.95	42.00 37.31	8.00 9.50
1400	American Linsced Co., Chicago, Ill.....	Wright & Hills Brand Oil Meal.....	Guaranteed Found.....	34.00 33.69	8.00 7.70	44.00 37.51	5.00 7.70
1401	Portland Milling Co., Portland, Mich.....	Champion Mixed Feed.....	Guaranteed Found.....	12.77	7.65	61.13	3.95
1402	Portland Milling Co., Portland, Mich.....	Puritas Corn & Oat Feed.....	Guaranteed Found.....	10.24	6.30	65.30	4.70
1403	The Illinois Seed Co., Chicago, Ill.....	Phoenix Brand Poultry Feed.....	Guaranteed Found.....	10.00 10.41	5.00 5.20	62.39	2.50 2.35
1404	The Illinois Seed Co., Chicago, Ill.....	Monitor Brand Chick Feed.....	Guaranteed Found.....	10.00 11.02	5.00 2.70	68.03	2.50 2.50
1405	The Beck Cereal Co., Detroit, Mich.....	Coarse Oat Middlings.....	Guaranteed Found.....	9.54 9.54	23.05 23.25	50.24 49.73	4.25 4.25
1406	The Beck Cereal Co., Detroit, Mich.....	Royal Chop Feed.....	Guaranteed Found.....	8.31 8.75	5.81 5.90	60.00 67.95	5.81 5.70
1407	The Valley City Milling Co., Grand Rapids, Mich.....	No. 1 Fine Ground Feed.....	Guaranteed Found.....	9.64 8.88	3.66 3.00	69.83 72.73	3.90 4.12
1408	The Valley City Milling Co., Grand Rapids, Mich.....	Coarse Corn Meal.....	Guaranteed Found.....	8.75 8.75	3.40 1.83	69.06 74.96	5.06 3.06
1409	The Valley City Milling Co., Grand Rapids, Mich.....	Street Car Feed.....	Guaranteed Found.....	9.28 9.10	3.12 4.05	71.05 70.99	4.43 4.40
1410	The Valley City Milling Co., Grand Rapids, Mich.....	Cow feed.....	Guaranteed Found.....	14.88	7.75	58.35	4.10
1411	Continental Cereal Co., Peoria, Ill.....	Continental Gluten Feed.....	Guaranteed Found.....	29.00 28.96	10.50 8.35	43.91	12.50 8.18



TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturers and address.	Brand.	Guaranteed Found	Protein. Per cent.	Crude fiber. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1429	American Cotton Oil Co., New York.	Choice Cottonseed Meal.	Guaranteed Found	41.00 41.21	10.50 9.55	6.50 29.09	9.00 9.85
1430	W. A. Daily, Saginaw, Mich.	Red Wing Scratch Food.	Guaranteed Found	9.89 11.46	2.80 4.35	67.34 66.43	3.45 3.30
1431	W. A. Daily, Saginaw, Mich.	Blue Ribbon Horse Food.	Guaranteed Found	8.95 9.73	4.68 5.96	63.26 64.07	3.29 2.57
1432	The C. E. DePuy Co., Stockbridge, Mich.	Victor Chick Feed.	Guaranteed Found	9.26 9.89	1.85 2.50	67.48 69.88	3.20 3.15
1433	The C. E. DePuy Co., Stockbridge, Mich.	Peerless Scratch Feed.	Guaranteed Found	9.45 10.50	2.20 3.35	66.66 69.91	3.47 2.60
1434	F. Becker, Grand Rapids, Mich.	Corn Meal.	Guaranteed Found	8.84	1.50	74.50	3.60
1435	Scheuren & Mok, Detroit, Mich.	Winner Developer.	Guaranteed Found	9.36 9.88	1.95 1.48	71.13 72.71	2.40 1.93
1436	Scheuren & Mok, Detroit, Mich.	Cockatoo Chick Feed.	Guaranteed Found	9.28 10.24	2.85 3.00	67.17 69.33	3.36 3.34
1437	Scheuren & Mok, Detroit, Mich.	Eagle Scratch Feed.	Guaranteed Found	9.28	2.20	66.76	3.38
1438	Scheuren & Mok, Detroit, Mich.	Chop Feed.	Guaranteed Found	7.61	5.95	66.01	4.45
1439	Chapin & Co., Hammond, Ind.	Unicorn Dairy Ration.	Guaranteed Found	26.00 23.71	10.00 9.10	50.00 49.98	5.50 4.06
1440	Chapin & Co., Hammond, Ind.	Green Diamond Brand Choice Cotton Seed Meal.	Guaranteed Found	41.00 40.09	10.00 8.90	25.00 27.96	8.00 8.08
1441	Chapin & Co., Hammond, Ind.	Ajax Flakes.	Guaranteed Found	30.00 31.85	14.00 13.45	30.00 34.00	11.00 12.00
1442	Armour Fertilizer Works, Chicago, Ill.	Armour's Blood Meal.	Guaranteed Found	80.00 80.15	1.50		
1443	Armour Fertilizer Works, Chicago, Ill.	Armour's Meat Scraps.	Guaranteed Found	55.00 56.87	1.50		14.32

No.	Name of Manufacturer	Name of Feed	Guaranteed Found	25.00 26.11	1.50
1444	Armour Fertilizer Works, Chicago, Ill.	Armour's Granulated Bone	Guaranteed Found		
1445	American Milling Co., Chicago, Ill.	Amco Old Process Linseed Meal	Guaranteed Found	32.00 33.02	11.00 7.10
1446	American Milling Co., Chicago, Ill.	Amco Hen Feed	Guaranteed Found	10.00 19.50	5.00 2.90
1447	American Milling Co., Chicago, Ill.	Amco Alfalfa Meal	Guaranteed Found	13.00 13.53	30.00 31.95
1448	The Sugarcane Co., Chicago, Ill.	Sugarcane Mixing Feed	Guaranteed Found	12.00 12.77	12.00 10.75
1449	H. M. Hobart & Son, Detroit, Mich.	P. & H. Chop Feed	Guaranteed Found	8.14	6.65
1450	F. W. Brode & Co., Memphis, Tenn.	Owl Brand Cotton Seed Meal	Guaranteed Found	41.00 39.39	10.00 9.25
1451	The Sugarcane Co., Chicago, Ill.	Sugarcane Horse Feed	Guaranteed Found	10.00	2.50
1452	American Milling Co., Detroit, Mich.	Chicken Feed	Guaranteed Found	12.95	4.90
1453	Henderson & Son, Grand Rapids, Mich.	Corn Meal	Guaranteed Found	8.75	1.25
1454	Cronenwett & Sons, Detroit, Mich.	Manhattan Stock Food	Guaranteed Found	10.08 10.56	2.53 1.94
1455	Cronenwett & Sons, Detroit, Mich.	Manhattan Poultry Food	Guaranteed Found	5.29 10.06	5.35 5.20
1456	A. F. Peavy & Sons, Howell, Mich.	PVS Chicken Feed	Guaranteed Found	9.97 10.15	4.47 3.55
1457	A. Hyde & Son, Grand Rapids, Mich.	Coarse Corn Meal	Guaranteed Found	8.75 8.84	1.95 1.75
1458	David Stott, Detroit, Mich.	Winner Chop Feed	Guaranteed Found	8.00 8.49	9.00 8.30
1459	Bad Axe Grain Co., Bad Axe, Mich.	"Axe" Brand Ground Feed	Guaranteed Found	11.55	8.02
1460	Bad Axe Grain Co., Bad Axe, Mich.	"Egg" Brand Poultry Feed	Guaranteed Found	9.19 10.24	3.30 2.35

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fibre. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
1461	H. P. Boehm Co., Benton Harbor, Mich.	Star Chicken Grain	Guaranteed Found.	10.85	3.70	71.84	3.30
1462	Lichtenberg & Son, Detroit, Mich.	Lichtenberg's Chop	Guaranteed Found.	8.75	6.00	69.03	3.90
1463	Lichtenberg & Son, Detroit, Mich.	Farmer Feed	Guaranteed Found.	9.70	6.91	65.10	4.03
1464	Imperial Cotton Milling Co., Peoria, Ill.	Imperial Cotton Brand Choice Cotton Seed Meal.	Guaranteed Found.	41.00 41.39	9.00 4.30	6.50 32.24	9.27
1465	J. E. Bartlett & Co. Jackson, Mich.	Farmer Brand Fancy Choice Cotton Seed Meal.	Guaranteed Found.	41.00 37.10	10.00 10.30	20.00 31.60	7.00 6.80
1466	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Alkali Horse & Mule Feed	Guaranteed Found.	10.00 10.92	12.00 9.80	..... 49.04	2.00 2.68
1467	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Dairy Feed	Guaranteed Found.	16.00 16.01	15.00 15.05	..... 50.22	2.00 2.72
1468	Darling & Co., Chicago, Ill.	Darling's Beef Scraps	Guaranteed Found.	55.00 57.23	2.50	.....	10.00 9.40
1469	Darling & Co., Chicago, Ill.	Darling's Beef Meal	Guaranteed Found.	45.00 53.81	3.00	.....	8.00 7.85
1470	Darling & Co., Chicago, Ill.	Darling's Granulated Bone	Guaranteed Found.	20.00 22.93	.....	.....	2.00 1.45
1471	Darling & Co., Chicago, Ill.	Darling's Chick Feed	Guaranteed Found.	10.00 10.85	5.00 3.95	65.00 64.92	2.50 3.00
1472	Darling & Co., Chicago, Ill.	Darling's Scratching Food	Guaranteed Found.	10.00 10.50	5.00 3.40	65.00 66.64	2.50 3.20
1473	Darling & Co., Chicago, Ill.	Darling's Mash Food	Guaranteed Found.	18.00 18.46	10.00 4.35	40.00 43.53	3.50 3.70
1474	Edwards & Loomis Co., Chicago, Ill.	Red Comb Poultry Feed	Guaranteed Found.	10.00 9.98	5.00 2.30	80.00 65.41	2.50 2.80
1475	Edwards & Loomis Co., Chicago, Ill.	Red Comb Coarse Chick Feed	Guaranteed Found.	10.00 10.15	5.00 2.25	80.00 66.80	2.50 2.90

1476	Edwards & Loomis Co., Chicago, Ill.	Red Comb Fine Chick Feed	Guaranteed Found.	10.00	5.00	60.00	2.60
				9.89	1.40	68.26	1.85
1477	Edwards & Loomis Co., Chicago, Ill.	Red Comb Meat Mash	Guaranteed Found.	15.00	8.00	45.00	4.00
				14.96	7.83	57.21	3.55
1478	Edwards & Loomis Co., Chicago, Ill.	Red Comb Pigeon Feed	Guaranteed Found.	10.00	5.00	60.00	2.60
				10.85	2.25	67.91	2.85
1479	Edwards & Loomis Co., Chicago, Ill.	Cackle Poultry Feed	Guaranteed Found.	9.50	5.00	60.00	2.60
				9.66	2.10	66.99	3.05
1480	Edwards & Loomis Co., Chicago, Ill.	Cackle Fine Chick Feed	Guaranteed Found.	9.50	5.00	60.00	2.60
				8.84	1.35	67.90	1.95
1481	Edwards & Loomis Co., Chicago, Ill.	Excelsior Horse Feed	Guaranteed Found.	10.00	8.00	60.00	3.00
1482	Edwards & Loomis Co., Chicago, Ill.	Pioneer (Horse & Cattle) Feed	Guaranteed Found.	7.50	8.00	60.00	2.50
1483	Edwards & Loomis Co., Chicago, Ill.	Harvest Horse Feed	Guaranteed Found.	9.00	15.00		2.00
1484	American Milling Co., Chicago, Ill.	Sucrene Alfalfa Horse & Mule Feed	Guaranteed Found.	11.00	12.00	50.00	2.50
				11.94	13.20	49.23	2.26
1485	Sugarine Co., Chicago, Ill.	Suco Hen Feed	Guaranteed Found.	10.00	5.00	65.00	3.00
				11.02	3.40	66.43	5.10
1486	Wykes & Co., Grand Rapids, Mich.	Y. X. Cottonseed Meal	Guaranteed Found.	41.00	10.00	30.55	7.00
				43.57	6.00		8.58
1487	Wykes & Co., Grand Rapids, Mich.	Old Process Lazo Cake Meal	Guaranteed Found.	25.00	11.00	40.00	8.00
1488	Wykes & Co., Grand Rapids, Mich.	Y. X. Corn Meal	Guaranteed Found.	8.31	2.05	79.78	4.32
				9.01	2.30	72.78	3.86
1489	Corunna Milling Co., Corunna, Mich.	Corunna Chicken Feed	Guaranteed Found.	10.02	3.37	65.65	3.33
				10.94	3.12	69.21	2.40
1490	Callan Mills, Saginaw, Mich.	Bob White Poultry Feed	Guaranteed Found.	9.00	4.00	65.00	3.00
				9.45	3.15	67.49	2.35
1491	Hanky Milling Co., Petoskey, Mich.	"Bran"	Guaranteed Found.	13.56	9.57	57.68	3.75
1492	Hygienic Food Co., Battle Creek, Mich. (By J. E. Bartlett, Jackson).	Bartlett's Flake Feed	Guaranteed Found.	8.75	1.15	77.44	1.12



TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturer and address.	Brand.	Guaranteed Found.	Protein. Per cent.	Crude fiber. Per cent.	Nitrogen—Free extract. Per cent.	Ether extract. Per cent.
1493	Brand & Harding Milling Co., Saginaw, Mich.	Mixed Feed.	Guaranteed Found.	10.24 9.80	6.90 3.10	68.06 66.65	4.70 4.00
1494	The Grain Products Co., Battle Creek & Detroit.	G. P. Co. Feed Stuff.	Guaranteed Found.	6.30	.65	80.64	.83
1495	H. J. Elliott, Pontiac, Mich.	Plymouth Rock Scratch Feed.	Guaranteed Found.	10.32 10.15	3.85 3.25	70.13 70.07	3.61 3.55
1496	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Broken Toasted Wheat Bisuit.	Guaranteed Found.	9.36 10.76	2.40 2.80	76.65 76.84	.85 .80
1497	L. Terekes & Co., Milwaukee, Wis.	Bedger Brand Chicken Feed.	Guaranteed Found.	10.00 10.50	5.00 3.70	64.80	2.55 2.55
1498	Ralston Purina Co., St. Louis, Mo.	Purina Molasses Feed.	Guaranteed Found.	10.00 9.08	12.00 7.73	59.00 60.76	2.35
1499	Portum Cereal Co., Ltd., Battle Creek, Mich.	C X X Feed.	Guaranteed Found.	15.00 10.46	24.00 17.16	42.00 56.80	2.00 1.95
1500	Portum Cereal Co., Ltd., Battle Creek, Mich.	Special Feeding Stuff.	Guaranteed Found.	9.00 10.80	.75 .25	75.00 79.95	.50 .75
1501	O. L. Hunter & Co., Chicago, Ill.	Calumet Hominy Feed.	Guaranteed Found.	8.50 9.71	10.00 2.20	70.51	7.00 7.03
1502	American Milling Co., Chicago, Ill.	Mixing Feed.	Guaranteed Found.	12.00 11.02	12.00 11.85	48.00 55.01	2.50 2.57
1503	Cancelled.		Guaranteed Found.				
1504	Standard Grocer & Milling Co., Holland, Mich.	Standard Scratch Feed.	Guaranteed Found.	9.36 10.16	3.66 2.50	71.50 69.94	2.78 2.55
1505	Watson-Higgins Milling Co., Grand Rapids, Mich.	Hoyle's Scratch Feed.	Guaranteed Found.	8.49	2.75	65.32	3.80
1506	Milwaukee Stock Feed Co., Milwaukee, Wis.	Blue Ribbon Poultry Feed.	Guaranteed Found.	10.00 11.27	5.00 1.85	60.00 70.83	2.50 2.55
1507	Chatfield, Milling Co., Bay City, Mich.	Plymouth Rock Poultry Feed.	Guaranteed Found.	9.45	3.60	68.25	3.40

1508	Bromfield & Corbin, Bay City, Mich.	Pure Mixed Grains	Guaranteed Found	9.19	2.45	71.76	3.00
1509	International Sugar Feed Co., Minneapolis, Minn.	International Poultry Feed	Guaranteed Found	10.00 11.46	5.00 2.42	70.00 69.99	2.76
1510	Quaker Oats Co., Chicago, Ill.	Sterling Chick Feed	Guaranteed Found	10.00 11.25	5.00 2.45	60.00 66.99	2.60 3.10
1511	Quaker Oats Co., Chicago, Ill.	Quaker Chick Feed	Guaranteed Found	10.00 10.50	5.00 2.45	60.00 68.47	2.80 2.10
1512	Quaker Oats Co., Chicago, Ill.	Daisy Hen Feed	Guaranteed Found	10.00 9.28	5.00 2.22	60.00 67.96	2.80 4.07
1513	Model Milling Co., Port Huron, Mich.	Modelfeed for Poultry	Guaranteed Found	9.63 9.89	3.25 3.45	70.44 70.53	2.90 3.15
1514	Model Milling Co., Port Huron, Mich.	Model mash	Guaranteed Found	11.64 11.81	7.35 6.65	49.58 64.62	3.15 3.50
1515	Caruthersville Cotton Oil Co., National Stock Yards, Ill.	Cotton Seed Meal	Guaranteed Found	41.00 42.96	10.00 6.50	26.00 27.49	7.00 8.80
1516	Tennessee Fibre Co., Memphis, Tenn.	Creamo Brand Cotton Seed Feed Meal	Guaranteed Found	20.00 38.50	25.00 22.33	35.00 20.87	5.00 4.46
1517	Watson-Higgins Milling Co., Grand Rapids, Mich.	Fine Corn Meal	Guaranteed Found	7.61	2.20	74.80	3.15
1518	Wykes & Co., Distributors, Grand Rapids, Mich.	Y. X. Old Process Oil Meal	Guaranteed Found	30.00	10.00	38.00	6.00
1519	The Larrore Milling Co., Detroit, Mich.	"Staff Brand" Cottonseed Meal	Guaranteed Found	41.00 41.30	12.00 7.40	23.00 30.37	7.00 8.48
1520	Dewey Bros. Co., Blanchester, Ohio	Bourbon Three D. Grains	Guaranteed Found	24.00	14.00	40.00	8.00
1521	Chas. A. Krause Milling Co., Milwaukee, Wis.	Choice Alfalfa Meal	Guaranteed Found	14.00 12.69	20.00 26.60	45.38	1.00 1.38
1522	Chas. A. Krause Milling Co., Milwaukee, Wis.	Badger Evergreen Feed	Guaranteed Found	11.83	13.43	47.86	.93
1523	The Dewey Bros. Co., Blanchester, Ohio	Corn Three D. Grains	Guaranteed Found	25.00 21.96	13.00 8.80	30.00 49.44	9.00 6.65
1524	T. H. Bunch Com. Co., Little Rock, Ark.	Ames Cotton Seed Meal	Guaranteed Found	38.60 37.89	8.00 8.40	6.28 34.66	7.00 6.96

TABULATED ANALYSES OF COMMERCIAL FEED STUFFS. (YEAR ENDING APRIL 1, 1913).—Con.

License No.	Manufacturer and address.	Brand.		Protein. Per cent.	Crude fiber. Per cent.	Nitrogen— Free extract. Per cent.	Ether extract. Per cent.
1525	T. H. Bunch Com. Co., Little Rock, Ark.	Old Gold Cotton Seed Meal	Guaranteed Found	41.00 41.21	9.00 8.80	6.59 29.69	8.00 7.90
1526	Caughy & Carrau Co., Detroit, Mich.	C. C. C. Brand Scratch Feed	Guaranteed Found	11.46	3.17	73.82	2.80
1527	Michigan Cereal Co., Port Huron, Mich.	Pea Bran	Guaranteed Found	12.88	37.98	35.81	1.45
1528	Alma Grain & Lumber Co., Alma, Mich.	Alma Molasses Dairy Feed	Guaranteed Found	13.35 11.64	12.38 12.50	59.99 62.71	2.85 2.70
1529	The Bartlett Co., Jackson, Mich.	Jersey Cotton Seed Meal	Guaranteed Found	37.01 35.17	12.28 13.60	30.11 30.18	6.70 7.50

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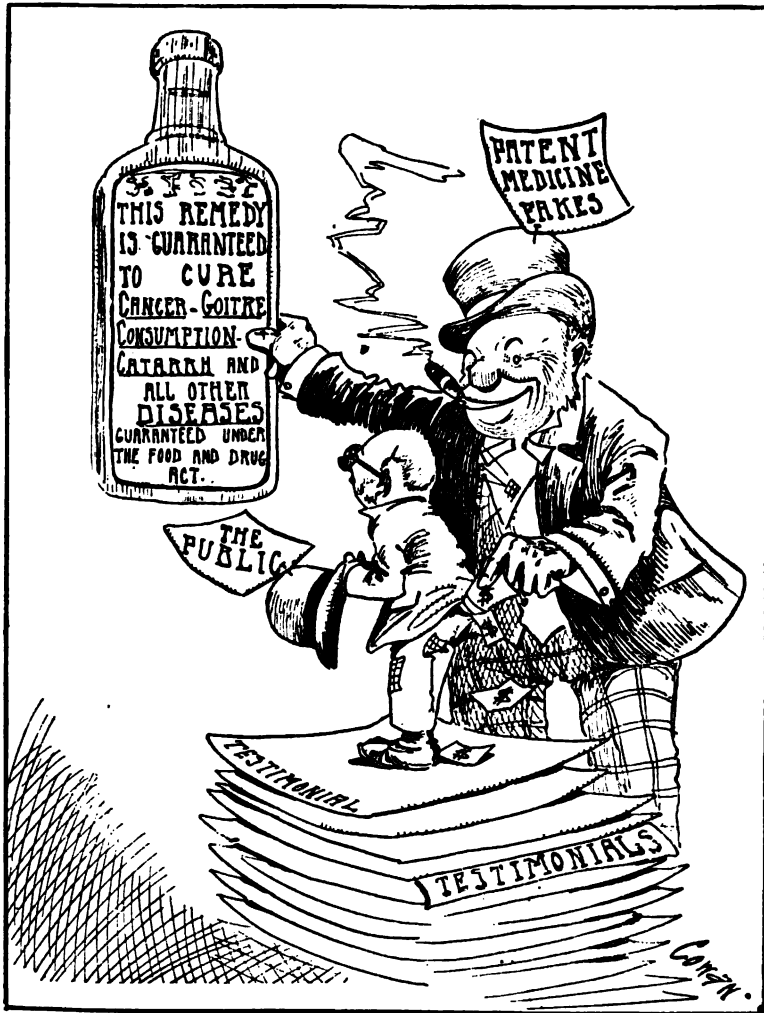
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**DRUG ANALYST'S REPORT.**

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July 1, 1913.

Hon. James W. Helme, State Dairy & Food Commissioner, Lansing,  
Michigan:

Dear Sir—Permit me to submit herewith my report as Drug Analyst for the year ending June 30th., 1913.

This year has been one of unusual activity in the Drug Division due to the increased work which has come to us as a result of the Department's aggressiveness in investigating the Patent Medicine business of this state.

The results of these investigations were published in special bulletins and sent all over the United States.

During this year, there have been examined in the Drug Department Laboratory, a total of 504 official samples, an increase of 222 over that of the previous year; 252 or 50% of the number examined have been condemned as adulterated or not in conformity with the laws of this state. An inspection of the tabulated analyses or the summary following will give some idea of the great variety of products examined. From an inspection of the summary it will be seen that the products which exhibit the greatest lack of conformity are the common every day called for articles made by the Druggists themselves.

You will note that there were 125 samples of Camphorated Oil or Camphor Liniment examined, 78 of which did not conform to the U. S. P. requirements for "Linimentum Camphorae," in that they were low in camphor. While the term "Camphorated Oil" does not appear in the U. S. P., yet from questioning Druggists all over the state it was found that Michigan Druggists considered Camphorated Oil and Linimentum Camphorae synonymous.

Sixty-four samples of Tincture of Opium were examined, 33 of which were found to be below the U. S. P. requirements. There is no excuse for Druggists to dispense an inferior article for this all important preparation when the standardized opium can be purchased and a U. S. P. tincture made from it by a very simple procedure.

19 samples of Carbolic Acid out of 25 were condemned. I recommend that a ruling be made permitting the Druggist to dispense equal parts of Carbolic Acid, glycerin and alcohol when Carbolic Acid is called for, inasmuch as such a mixture will not prove fatal if taken for suicidal purposes but will nevertheless answer all legitimate purposes for which this article is used.

Other more important preparations found to be adulterated are Essence of Pepsin, Seidlitz Powders, Spirits of Camphor, Tincture of Iodine and Sweet Spirits of Nitre. Again, I might say, that there is no possible reasons unless a lucrative one, why these products should not be up to standard.

Allow me to call your attention to the fact that although the Druggists of this state have had three years in which to comply with the requirements of the law, yet 50% of the samples analyzed as shown in

the tabulated report were found to be adulterated and misbranded. This might be explained by the fact that this Department has shown extreme leniency in the enforcement of the law, in, that prosecutions were instituted only after a second sample of that particular product had been taken up and had been found to be adulterated or misbranded. I recommend that beginning with January 1st, 1914, or before, that, each and every Druggist not complying with the requirements of the drug law be promptly prosecuted.

Yours very truly,  
A. R. TODD,  
Drug Analyst.

## SUMMARY OF DRUGS.

Article.	Total.	Not found adulterated, misbranded or illegally sold.	Found adulterated, misbranded or illegally sold.
Acetylsalicylic acid . . . . .	1	1	0
Alcohol . . . . .	2	1	1
Asafoetida tablets . . . . .	1	0	1
Aspirin tablets . . . . .	13	11	2
Atropine tablets . . . . .	1	1	0
Beef, iron and wine . . . . .	3	2	1
Bismuth subnitrate . . . . .	2	2	0
Camphorated oil . . . . .	125	47	78
Carbolic acid . . . . .	26	7	19
Digestive tablets . . . . .	5	3	2
Elixir bark, iron and strychnine . . . . .	1	1	0
Elixir iron, quinine and strychnine . . . . .	13	6	7
Essence peppermint . . . . .	18	5	13
Essence pepsin . . . . .	20	14	6
Flowers of sulphur . . . . .	1	1	0
Fluid extract nux vomica . . . . .	20	11	9
Formaldehyde . . . . .	3	3	0
Fowler's solution . . . . .	12	8	4
Hydrochloric acid . . . . .	4	2	0
Hydrogen peroxide . . . . .	4	4	0
Laudanum . . . . .	9	7	2
Lead water . . . . .	1	1	0
Lime water . . . . .	4	3	1
Nitric acid . . . . .	1	0	1
Nitro hydrochloric acid . . . . .	17	3	14
Oil anise . . . . .	2	2	0
Paregoric . . . . .	1	1	0
Proprietary preparations . . . . .	9	6	3
Seidlitz powders . . . . .	24	14	10
Soap liniment . . . . .	2	2	0
Spirits camphor . . . . .	15	7	8
Spirits nitre . . . . .	23	11	12
Syrup heroin sedative . . . . .	1	1	0
Syrup iodide of iron . . . . .	5	4	1
Tincture ginger . . . . .	1	0	1
Tincture iodine . . . . .	15	1	14
Tincture nux vomica . . . . .	12	6	6
Tincture opium . . . . .	64	31	33
T. T. Calomel . . . . .	1	1	0
T. T. Codeine . . . . .	4	2	2
T. T. Morphine . . . . .	1	1	0
T. T. Nitro glycerine . . . . .	3	2	1
T. T. Strychnine . . . . .	1	1	0
Turpentine . . . . .	15	15	0
Totals . . . . .	504	252	252

## ANALYSES OF DRUG SAMPLES.

## ALCOHOL.

No. 25523, E-341. Sample of alcohol procured from W. K. Schmidt Co., Grand Rapids. Sample is dilute alcohol. Not U. S. P.

## ASAFOETIDA (POWDERED).

No. 26990, Z-39. Sample of powdered asafoetida manufactured by the Hazeltine & Perkins Drug Co., Grand Rapids, and procured from the Armstrong Drug Co., Constantine. High in ash. Not U. S. P.

## ASPIRIN TABLETS.

No. 26987, Z-36. Sample of 5 gr. aspirin tablets manufactured by the American Druggist Syndicate, New York, and procured from Roehm & Moyer, Charlotte. These tablets do not conform to the statement on the label, viz., that they are 5 gr. aspirin tablets. Each tablet contains less than two grains of aspirin.

No. 27310, Q-112. Sample of 5 gr. aspirin tablets manufactured by F. W. Kerr, Detroit, and procured from O. W. Gorenflo, Detroit. Tablets do not contain 5 grains aspirin.

## BEEF, IRON &amp; WINE.

No. 26802, Q-48. Sample of beef, iron and wine manufactured by the Michigan Drug Company, Detroit, and procured from Sherman & Grettenberger, Perry. Sample does not conform to N. F., 3rd edition, in that it contains an excessive amount of iron calculated as metallic iron.

## CAMPHORATED OIL.

No. 25563, E-351. Sample of camphorated oil manufactured and sold by L. J. Richter, Saginaw. Low in camphor. Not U. S. P.

No. 25651, E-352. Sample of camphorated oil manufactured and sold by Sid D. Thompson, Sheperd. Not U. S. P. Low in camphor.

No. 25653, E-354. Sample of camphorated oil manufactured and sold by Stram & Seward, Ludington. Not U. S. P. Low in camphor.

No. 25692, E-368. Sample of camphorated oil manufactured and sold by W. H. Foot, Saginaw. Not U. S. P. Low in camphor.

No. 25700, E-376. Sample of camphorated oil manufactured and sold by Neuendorf & Schmeck, Saginaw. Not U. S. P. Low in camphor.

No. 25783, E-392. Sample of camphorated oil manufactured and sold by Hubbard & Fuller, Greenville. Not U. S. P. Low in camphor.

No. 25796, Q-178. Sample of camphorated oil manufactured and sold by O. W. Gorenflo, Detroit. Not U. S. P. Low in camphor.

No. 25803, Q-185. Sample of camphorated oil manufactured and sold by W. H. Housman, Detroit. Not U. S. P. Low in camphor.

No. 25809, Q-191. Sample of camphorated oil manufactured and sold by Bailey & Bottomley, Detroit. Not U. S. P. Low in camphor.

No. 25814, Q-196. Sample of camphorated oil manufactured and sold by H. Pinkerton, Detroit. Not U. S. P. Low in camphor.

No. 25816, Q-198. Sample of camphorated oil manufactured and sold by C. H. Potts, Detroit. Not U. S. P. Low in camphor.

No. 25928, Q-206. Sample of camphorated oil manufactured and sold by Doty Bros., Detroit. Not U. S. P. Low in camphor.

No. 25932, Q-210. Sample of camphorated oil manufactured and sold by Toal & Vannest, Detroit. Not U. S. P. Low in camphor.

No. 25941, E-402. Sample of camphorated oil manufactured and sold by C. W. Bahel, Onaway. Not U. S. P. Low in camphor.

No. 25952, E-413. Sample of camphorated oil manufactured and sold by Fallass Drug Co., Petoskey. Not U. S. P. Low in camphor.

No. 25953, E-414. Sample of camphorated oil manufactured and sold by the Webber Benson Co., Cadillac. Not U. S. P. Low in camphor.

No. 25987, Q-213. Sample of camphorated oil manufactured and sold by P. Scherer & Son, Benton Harbor. Not U. S. P. Low in camphor.

No. 25988, Q-214. Sample of camphorated oil manufactured and sold by G. S. Barnard, Benton Harbor. Not U. S. P. Low in camphor.

No. 25989, Q-215. Sample of camphorated oil manufactured and sold by Geo. C. Bridgman, Benton Harbor. Not U. S. P. Low in camphor.

No. 25990, Q-216. Sample of camphorated oil manufactured and sold by Battlement Drug Co., Benton Harbor. Not U. S. P. Low in camphor.

No. 25993, Q-219. Sample of camphorated oil manufactured and sold by H. L. Bird Drug Co., Benton Harbor. Not U. S. P. Low in camphor.

No. 25997, Q-223. Sample of camphorated oil manufactured and sold by Swan Drug Co., Benton Harbor. Not U. S. P. Low in camphor.

No. 25994, Q-220. Sample of camphorated oil manufactured and sold by Frank T. Connell, Benton Harbor. Not U. S. P. Low in camphor.

No. 26007, E-424. Sample of camphorated oil manufactured and sold by Wests Drug Store, 251 Monroe Ave., Grand Rapids. Not U. S. P. Low in camphor.

No. 26047, E-435. Sample of camphorated oil manufactured and sold by the Rivard Pharmacy, Detroit. Not U. S. P. Low in camphor.

No. 26048, E-436. Sample of camphorated oil manufactured and sold by the Red Cross Pharmacy, Detroit. Not U. S. P. Low in camphor.

No. 26051, E-439. Sample of camphorated oil manufactured and sold by the Crane Pharmacy, Detroit. Not U. S. P. Low in camphor.

No. 26057, E-445. Sample of camphorated oil manufactured and sold by D. T. Dewitt, Detroit. Not U. S. P. Low in camphor.

No. 26083, Q-241. Sample of camphorated oil manufactured and sold by M. E. Gamble, Kalamazoo. Not U. S. P. Low in camphor.

No. 26105, E-446. Sample of camphorated oil manufactured and sold by White & White, Grand Rapids. Not U. S. P. Low in camphor.

No. 26107, E-448. Sample of camphorated oil manufactured and sold by C. B. Crampton, Flint. Not U. S. P. Low in camphor.

No. 26108, E-449. Sample of camphorated oil manufactured and sold by E. C. Litchfield, Flint. Not U. S. P. Low in camphor.

No. 26109, E-450. Sample of camphorated oil manufactured and sold by F. D. Baker & Son, Flint. Not U. S. P. Low in camphor.

No. 26110, E-451. Sample of camphorated oil manufactured and sold by E. M. Hixon, Flint. Not U. S. P. Low in camphor.

No. 26119, E-453. Sample of camphorated oil manufactured and

sold by Chas. M. Surine, Grand Rapids. Not U. S. P. Low in camphor.

No. 26121, E-455. Sample of camphorated oil manufactured and sold by H. F. Bodine, Clio. Not U. S. P. Low in camphor.

No. 26141, Q-252. Sample of camphorated oil manufactured and sold by Wagner Drug Company, Bangor. Not U. S. P. Low in camphor.

No. 26151, E-459. Sample of camphorated oil manufactured and sold by Davy Jones Drug Co., Detroit. Not U. S. P. Low in camphor.

No. 26152, E-460. Sample of camphorated oil manufactured and sold by M. J. Morrish, Detroit. Not U. S. P. Low in camphor.

No. 26153, E-461. Sample of camphorated oil manufactured and sold by A. J. Filer, Detroit. Not U. S. P. Low in camphor.

No. 26156, E-464. Sample of camphorated oil manufactured and sold by W. C. Marx, Detroit. Not U. S. P. Low in camphor.

No. 26157, E-465. Sample of camphorated oil manufactured and sold by W. G. Thomczek, Detroit. Not U. S. P. Low in camphor.

No. 26245, Q-1. Sample of camphorated oil manufactured and sold by Kimnich & Nesper, Lansing. Not U. S. P. Low in camphor.

No. 26247, Q-3. Sample of camphorated oil manufactured and sold by Swanton Drug Co., Lansing. Not U. S. P. Low in camphor.

No. 26364, Q-13. Sample of camphorated oil manufactured and sold by the Progressive Drug Co., Detroit. Not U. S. P. Low in camphor.

No. 26366, Q-15. Sample of camphorated oil manufactured and sold by H. S. Taylor, Detroit. Not U. S. P. Low in camphor.

No. 26441, Q-18. Sample of camphorated oil manufactured and sold by Lewis McFarland, Detroit. Not U. S. P. Low in camphor.

No. 26512, Q-25. Sample of camphorated oil manufactured and sold by I. W. Cardula, 2463 W. Jefferson Ave., Detroit. Does not conform to U. S. P. requirements in that it is low in camphor.

No. 26518, Q-31. Sample of camphorated oil manufactured at the Buchanan Pharmacy, 362 Buchanan St., Detroit, and procured from Dr. A. L. Turner, Detroit. Does not conform to U. S. P. requirements in that it is low in camphor.

No. 26563, Q-35. Sample of camphorated oil manufactured and sold by F. A. Hall, 105 S. Gorham St., Jackson. Does not conform to U. S. P. requirements in that it is low in camphor.

No. 26716, Q-37. Sample of camphorated oil manufactured and sold by H. H. Fenn Co., Chelsea. Does not conform to U. S. P. requirements in that it is low in camphor.

No. 26932, Q-66. Sample of camphorated oil manufactured and sold by S. K. Harvey, 77 Harper Ave., Detroit. Does not conform to U. S. P. requirements in that it is low in camphor.

No. 27000, Q-72. Sample of camphorated oil manufactured and sold by F. W. Gordon, 1219 Kercheval Ave., Detroit. Does not conform to U. S. P. requirements in that it contains only about one-fourth as much camphor as the U. S. P. standard.

No. 27006, Q-78. Sample of camphorated oil manufactured and sold by the Crowley & Milner Co., Detroit. Does not conform to U. S. P. requirements in that it contains only about one-third as much camphor as the U. S. P. directs.

No. 27012, Q-84. Sample of camphorated oil manufactured and sold by L. B. Hittle, Clinton. Low in camphor. Not U. S. P.



No. 27119, Q-91. Sample of camphorated oil manufactured and sold by the Duncombe Pharmacy, 2946 Woodward Ave., Detroit. Low in camphor. Not U. S. P.

No. 27121, Q-93. Sample of camphorated oil manufactured and sold by Smith & Blair, Royal Oak. Low in camphor. Not U. S. P.

No. 27225, Z-56. Sample of camphorated oil manufactured and sold by B. Hayes & Son, Galesburg. Low in camphor. Not U. S. P.

No. 27269, Q-107. Sample of camphorated oil manufactured by the Druggist's Cooperative Association, Detroit, and procured from J. A. Dyer, 1916 Gratiot Ave., Detroit. Low in camphor. Not U. S. P.

No. 27270, Q-108. Sample of camphorated oil manufactured and sold by J. F. Ward, 1043 DuBois St., Detroit. Low in camphor. Not U. S. P.

No. 27307, Q-109. Sample of camphorated oil manufactured and sold by W. G. Kanter, 211 Farnsworth, Detroit. Low in camphor. Not U. S. P.

No. 27309, Q-111. Sample of camphorated oil manufactured and sold by O. W. Gorenflo, Washington, Arcade, Detroit. Contains 8% excessive amount of camphor.

No. 27311, Q-113. Sample of camphorated oil manufactured and sold by Rivard Pharmacy, 174 Rivard St., Detroit. Contains an excessive amount of camphor.

No. 27312, Q-114. Sample of camphorated oil manufactured and sold by the Red Cross Pharmacy, 259 Rivard St., Detroit. Low in camphor. Not U. S. P.

No. 27313, Q-115. Sample of camphorated oil manufactured and sold by the B. B. Drug Store, 95 Champlain, Detroit. Low in camphor. Not U. S. P.

No. 27314, Q-116. Sample of camphorated oil manufactured and sold by Jones Bros., 1653 Grand River Ave., Detroit. Contains 7.8% excessive amount of camphor.

No. 27317, Q-119. Sample of camphorated oil manufactured and sold by Robert Hislop, 752 Grand River Ave., Detroit. Contains 7.8% excessive amount of camphor.

No. 27318, Q-120. Sample of camphorated oil manufactured and sold by H. S. Taylor, 200 Henry St., Detroit. Low in camphor. Not U. S. P.

No. 27319, Q-121. Sample of camphorated oil manufactured and sold by Lewis McFarland, 528 Michigan Ave., West, Detroit. Low in camphor. Not U. S. P.

No. 27320, Q-122. Sample of camphorated oil manufactured and sold by the Lemen Pharmacy, Michigan Ave. and Carleton St., Detroit. Low in camphor. Not U. S. P.

No. 27349, Q-123. Sample of camphorated oil manufactured and sold by the McKeighan Drug Co., 2005 Industrial Ave., Flint. Low in camphor. Not U. S. P.

No. 27350, Q-124. Sample of camphorated oil manufactured and sold by Patrick S. Slattery, Mt. Morris. Low in camphor. Not U. S. P.

No. 27356, Z-66. Sample of camphorated oil manufactured and sold by M. T. Karcher, Thompsonville. Low in camphor. Not U. S. P.

No. 27411, Z-74. Sample of camphorated oil manufactured and sold by Erwin Drug Co., Battle Creek. Low in camphor. Not U. S. P.

No. 27446, Q-129. Sample of camphorated oil manufactured and sold by W. C. Marx, 461 Campau Ave., Detroit. Low in camphor. Not U. S. P.

No. 27447, Q-130. Sample of camphorated oil manufactured and sold by F. P. Toal, 345 Trumble Ave., Detroit. Low in camphor. Not U. S. P.

No. 27448, Q-131. Sample of camphorated oil manufactured and sold by F. B. Hursley, 170 Michigan Ave., West, Detroit. Low in camphor. Not U. S. P.

No. 27452, Q-135. Sample of camphorated oil manufactured and sold by Bailey & Bottomley, 1219 Woodward Ave., Detroit. Low in camphor. Not U. S. P.

#### CARBOLIC ACID.

No. 24828, E-277. Sample of carbolic acid manufactured and sold by S. B. Clark, Flint. Not in conformity with U. S. P. standard. Low in phenol.

No. 24892, E-284. Sample of carbolic acid manufactured and sold by W. H. McKeighan, Flint. Not in conformity with U. S. P. standard. Low in phenol.

No. 25191, E-290. Sample of carbolic acid manufactured and sold by C. J. Ditmers, Grand Rapids. Not in conformity with U. S. P. standard. Low in phenol.

No. 25192, E-291. Sample of carbolic acid manufactured and sold by W. H. Tibbs, Grand Rapids. Does not conform to statement on label.

No. 25193, E-292. Sample of carbolic acid manufactured and sold by Peck Bros., Grand Rapids. Does not conform to label relative to phenol strength.

No. 25194, E-293. Sample of carbolic acid manufactured and sold by W. C. Kirchgessner, Grand Rapids. Does not conform to U. S. P. standard. Low in phenol.

No. 25196, E-295. Sample of carbolic acid manufactured and sold by W. H. Quigley, Grand Rapids. Not in conformity with U. S. P. requirements. Low in phenol.

No. 25197, E-296. Sample of carbolic acid manufactured and sold by F. W. Baxter, Grand Rapids. Does not conform to statement on label relative to phenol strength.

No. 25200, E-299. Sample of carbolic acid manufactured and sold by O. A. Fackboner, Grand Rapids. Does not conform to U. S. P. requirements. Low in phenol.

No. 25226, E-302. Sample of carbolic acid manufactured and sold by E. S. Upson, Durand. Does not conform to U. S. P. requirements. Low in phenol.

No. 25233, E-309. Sample of carbolic acid manufactured and sold by the Normal Drug & Book Store, Mt. Pleasant. Does not conform to U. S. P. requirements or the statement on the label.

No. 25234, E-310. Sample of carbolic acid manufactured and sold by W. W. Cox, Mt. Pleasant. Does not conform to U. S. P. requirements. Low in phenol.

No. 25309, E-314. Sample of carbolic acid manufactured and sold by the West Drug Store, 91-93 Monroe St., Grand Rapids. Does not conform to U. S. P. requirements. Low in phenol.

No. 25310, E-315. Sample of carbolic acid manufactured and sold by Schrouders, 49 Monroe St., Grand Rapids. Does not conform to U. S. P. requirements. Low in phenol.

No. 25311, E-316. Sample of carbolic acid manufactured and sold by E. J. Fletcher, Grand Rapids. Does not conform to U. S. P. requirements. Low in phenol.

No. 25312, E-317. Sample of carbolic acid manufactured and sold by C. R. Green, Grand Rapids. Does not conform to U. S. P. requirements. Low in phenol.

No. 25483, E-330. Sample of carbolic acid manufactured and sold by C. M. LaRue, Bay City. Does not conform to U. S. P. requirements. Low in phenol.

No. 25812, Q-194. Sample of carbolic acid manufactured and sold by L. K. Liggett Co., Detroit. Does not conform to U. S. P. requirements. Low in phenol.

No. 25926, Q-204. Sample of carbolic acid manufactured and sold by R. W. Rennie, Detroit. Does not conform to U. S. P. requirements. Low in phenol.

#### DYSPEPSIA TABLETS.

No. 26757, Q-44. Sample of Rexal Dyspepsia Tablets manufactured by the United Drug Co., Boston, Mass., and procured from G. W. Beck, Durand. Misbranded.

No. 26818, Z-26. Sample of Penslar Dyspepsia Tablets manufactured by the Peninsular Chemical Co., Detroit, and procured from Geo. C. Bridgeman, Benton Harbor. Misbranded.

#### ELIXIR IRON, QUININE & STRYCHNINE.

No. 25690, E-366. Sample of elixir iron, quinine and strychnine manufactured and sold by A. E. Tomlinson, Saginaw. Not an N. F. preparation. Low in alkaloids.

No. 25818, Q-200. Sample of elixir iron, quinine and strychnine manufactured and sold by A. E. Chantler, Detroit. Not an N. F. preparation. Low in alkaloids.

No. 26006, E-423. Sample of elixir iron, quinine and strychnine manufactured and sold by Walter K. Schmidt Co., Grand Rapids. Not an N. F. preparation. Low in alkaloids.

No. 26008, E-425. Sample of elixir iron, quinine and strychnine procured from Wests Drug Store, 251 Monroe Ave., Grand Rapids. Not an N. F. preparation. Low in alkaloids.

No. 26039, E-427. Sample of elixir iron, quinine and strychnine procured from Crowley Milner Co., Detroit. Not an N. F. preparation. Low in alkaloids.

No. 26516, Q-29. Sample of elixir iron, quinine and strychnine procured from J. B. Young, 792 Junction Ave., Detroit. Does not conform to N. F. in that it is low in total alkaloids.

No. 26863, Q-56. Sample of elixir iron, quinine and strychnine manufactured by Peck, Johnson Co., Grand Rapids, and procured from the Howell Sanitorium. Does not conform to N. F. 3rd edition. Low in total alkaloids.

## ESSENCE PEPPERMINT.

No. 24722, E-266. Sample of essence of peppermint manufactured and sold by F. J. Loppenthein, Ludington. Not U. S. P. Low in oil of peppermint.

No. 24900, Q-147. Sample of essence of peppermint manufactured and sold by Chas. Dykstra, Holland. Not in conformity with U. S. P. Double strength.

No. 25221, Q-156. Sample of essence of peppermint manufactured and sold by J. D. Birney & Co., Eaton Rapids. Oil of peppermint 1.8%. Low in peppermint oil.

No. 25369, Q-157. Sample of essence of peppermint manufactured and sold by J. B. Young, Detroit. Not U. S. P. Low in peppermint oil.

No. 25611, Q-162. Sample of essence of peppermint manufactured and sold by C. A. Fuhrman, Lawton. Not U. S. P. Low in peppermint oil.

No. 26002, E-419. Sample of essence of peppermint manufactured and sold by Karl H. Wheeler, Grand Rapids. Not U. S. P. Low in peppermint oil.

No. 26030, Q-229. Sample of essence of peppermint manufactured and sold by R. G. Mitter, Detroit. Not U. S. P. Low in peppermint oil.

No. 26082, Q-240. Sample of essence of peppermint procured from V. E. Spalding, Kalamazoo. Not U. S. P. Low in peppermint oil.

No. 26084, Q-242. Sample of essence of peppermint manufactured and sold by M. E. Gamble, Kalamazoo. Not U. S. P. Low in peppermint oil.

No. 26087, Q-245. Sample of essence of peppermint manufactured and sold by F. B. Drolet, Kalamazoo. Not U. S. P. Low in peppermint oil.

No. 26125, Q-250. Sample of essence of peppermint manufactured and sold by Hoffman Bros., Jackson. Not U. S. P. Low in peppermint oil.

No. 26126, Q-251. Sample of essence of peppermint manufactured and sold by W. W. Todd, Jackson. Not U. S. P. Low in peppermint oil.

No. 26348, Z-5. Sample of essence of peppermint manufactured and sold by I. L. Dodd, Buchanan. Not U. S. P. Low in peppermint oil.

## ESSENCE PEPSIN.

No. 25792, Q-174. Sample of essence pepsin manufactured and sold by the Central Drug Company, Detroit. Not an N. F. preparation. Low in pepsin strength.

No. 25808, Q-190. Sample of essence pepsin manufactured and sold by Sepull & Travis, Detroit. Not an N. F. preparation. Low in pepsin strength.

No. 25944, E-405. Sample of essence pepsin manufactured and sold by Eckel Drug Co., Petoskey. Not an N. F. preparation. Low in pepsin strength.

No. 25949, E-410. Sample of essence pepsin procured from F. G. Hines & Co., Charlevoix. Not an N. F. preparation. Low in pepsin strength.

No. 25951, E-412. Sample of essence pepsin manufactured and sold

by Fred Glass Drug Co., Petoskey. Not an N. F. preparation. Low in pepsin strength.

No. 26290, Z-1. Sample of essence pepsin manufactured and sold by Peck, Johnson Co., Grand Rapids. Does not conform to N. F. in pepsin strength.

#### F. E. NUX VOMICA.

No. 25678, Q-173. Sample of fluid extract nux vomica procured from H. C. Stevenson, South Lyons. Not U. S. P. Low in strychnine.

No. 25804, Q-186. Sample of fluid extract nux vomica procured from Doty Bros., Detroit. Not U. S. P. Low in strychnine.

No. 26035, Q-234. Sample of fluid extract nux vomica manufactured by the Ray Chemical Co., Detroit, and procured from M. C. Pendleton, Detroit. Not U. S. P. Low in strychnine.

No. 26080, Q-238. Sample of fluid extract nux vomica manufactured by the Upjohn Co., Kalamazoo, and procured from V. E. Spaulding, Kalamazoo. Not U. S. P. Low in strychnine.

No. 26090, Q-248. Sample of fluid extract nux vomica procured from Coleman Drug Company, Kalamazoo. Not U. S. P. Low in strychnine.

No. 26104, Q-249. Sample of fluid extract nux vomica manufactured by O. F. Schmidt Chemical Co., Jackson, and procured from D. E. Murray, Jackson. Not U. S. P. Low in strychnine.

No. 26144, Q-255. Sample of fluid extract nux vomica procured from D. Van Bree, Zeeland. Not U. S. P. Low in strychnine.

No. 26146, Q-257. Sample of fluid extract nux vomica procured from Ray E. Eaton, Otsego. Not U. S. P. Low in strychnine.

No. 26255, Q-6. Sample of fluid extract nux vomica procured from A. B. Shiffer, Lansing. Not U. S. P. Low in strychnine.

#### FOWLERS SOLUTION.

No. 24675, E-260. Sample of Fowlers Solution manufactured and sold by H. & W. Heim, Saginaw. Not U. S. P. Low in arsenic.

No. 24721, E-265. Sample of Fowlers Solution manufactured and sold by E. H. Lemire, White Cloud. Not U. S. P. Low in arsenic.

No. 24723, E-267. Sample of Fowlers Solution manufactured and sold by F. J. Loppenthein, Ludington. Not U. S. P. Low in arsenic.

No. 24724, E-268. Sample of Fowlers Solution manufactured and sold by C. J. Hansen, Ludington. Not U. S. P. Low in arsenic.

#### LAUDANUM.

No. 26861, Q-54. Sample of laudanum manufactured and sold by E. A. Schwartz, 2558 Jefferson Ave., East, Detroit. Does not conform to U. S. P. requirements in that it is low in morphine.

No. 27352, Q-126. Sample of laudanum manufactured by Kirchman Bros., Bay City, and procured from J. A. Brown, Wilmot. Not U. S. P. Low in morphine.

#### LIME WATER.

No. 26031, Q-230. Sample of lime water manufactured and sold by R. G. Mitter, Detroit. Not U. S. P. Low in calcium hydroxide.

## NITRIC ACID.

No. 25794, Q-176. Sample of nitric acid, dilute, manufactured and sold by the Central Drug Co., Detroit. Not U. S. P. Contains about twice too much hydrochloric acid and about three times too much nitric acid.

## NITRO-HYDROCHLORIC ACID.

No. 25676, Q-171. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by E. K. Johnson, Howell. Not U. S. P. Low in hydrochloric acid.

No. 25691, E-367. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by W. H. Foot, Saginaw. Not U. S. P. Low in hydrochloric acid and contains an excess of nitric acid.

No. 25694, E-370. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Marwinske & Loebrich, Saginaw. Not U. S. P. Low in hydrochloric acid and nitric acid.

No. 25701, E-377. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Clark & Wallace, Saginaw. Not U. S. P. Low in hydrochloric acid and in nitric acid.

No. 25793, Q-175. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by the Central Drug Company, Detroit. Not U. S. P. Low in hydrochloric acid and nitric acid.

No. 25800, Q-182. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by John Harvey Co., Detroit. Not U. S. P. Contains about 1.5% excess hydrochloric acid.

No. 25803, Q-184. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by W. W. Fiero, Detroit. Not U. S. P. Contains about 2% excess nitric acid.

No. 25807, Q-189. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Sepull & Travis, Detroit. Not U. S. P. Low in hydrochloric acid and contains about 3% excess nitric acid.

No. 25923, Q-201. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by J. H. Joyce, Detroit. Not U. S. P. Contains an excessive amount of hydrochloric acid and is low in nitric acid.

No. 25927, Q-205. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by A. F. Cragg, Detroit. Not U. S. P. Low in nitric acid.

No. 25934, Q-212. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Toal & Vannest, Detroit. Not U. S. P. Low in nitric acid.

No. 26004, E-421. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Schrouders, Grand Rapids. Not U. S. P. Low in hydrochloric acid and in nitric acid.

No. 26052, E-440. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by the Fairview Pharmacy. Not U. S. P. Low in hydrochloric acid.

No. 26056, E-444. Sample of nitro-hydrochloric acid, dilute, manufactured and sold by Mt. Elliott Pharmacy, Detroit. Not U. S. P. Contains an excessive amount of nitric acid and is deficient in hydrochloric acid.

## PROPRIETARY PREPARATIONS.

No. 25224, Q-154. Sample of Shiloh's Consumption Cure manufactured by S. C. Wells, LeRoy, N. Y. and procured from A. B. Schumaker, Grand Ledge. No statement on the label to show the presence of chloroform.

No. 25225, Q-155. Sample of Whites Pulmonaria manufactured by A. B. White, Indianapolis, Ind. and procured from A. B. Schumaker, Grand Ledge. No statement of alcohol or chloroform on label.

No. 26753, Z-23. Sample of Dr. Lyon's Home Treatment for Catarrh manufactured by Dr. Lyon Medicine Co., Coldwater, and procured from G. T. Chamberlain, Hartford. Misbranded in that the alcoholic content is not stated on the label.

## SEIDLITZ POWDERS.

No. 26662, Z-14. Sample of seidlitz powders manufactured by Frederick Stearns & Co., Detroit, and procured from J. T. Millman, St. Johns. Low in sodium bicarbonate and potassium and sodium tartrate.

No. 26664, Z-16. Sample of seidlitz powders manufactured and sold by The Hill Drug Company, Grand Rapids. Low in potassium and sodium tartrate and sodium bicarbonate.

No. 26667, Z-19. Sample of seidlitz powders manufactured by Nelson, Baker Co., Detroit. Low in tartaric acid.

No. 26858, Q-51. Sample of seidlitz powders manufactured by Nelson, Baker & Co., Detroit, and procured from J. E. Campbell, 2129 Jefferson Ave., East, Detroit. Does not conform to U. S. P. requirements. White papers do not contain sufficient tartaric acid and blue papers do not contain sufficient of the mixture of sodium bicarbonate, potassium and sodium tartrate.

No. 26862, Q-55. Sample of seidlitz powders manufactured and sold by the Fairview Pharmacy, 2550 Jefferson Ave., East, Detroit. Does not conform to U. S. P. requirements. Blue papers do not contain sufficient of the mixture of sodium bicarbonate, potassium and sodium tartrate.

No. 26886, Z-30. Sample of seidlitz powders manufactured by Nelson, Baker & Co., Detroit, and procured from C. M. Woodworth, Grand Rapids. Does not conform to U. S. P. requirements. White papers do not contain sufficient tartaric acid and blue papers do not contain sufficient of the mixture of sodium bicarbonate, potassium and sodium tartrate.

No. 26931, Q-65. Sample of seidlitz powders manufactured and sold by the Ryan Drug Co., 1206 Woodward Ave., Detroit. Does not conform to U. S. P. requirements. Blue papers do not contain sufficient of the mixture of sodium bicarbonate, potassium and sodium tartrate.

No. 27003, Q-75. Sample of seidlitz powders manufactured and sold by the Central Drug Co., 89 Woodward Ave., Detroit. Not U. S. P. White papers do not contain sufficient tartaric acid.

No. 27005, Q-77. Sample of seidlitz powders manufactured by Chas. R. Doane, Brooklyn, N. Y., and procured from Crowley, Milner Co., Detroit. Not U. S. P. White papers do not contain sufficient tartaric acid.

No. 27130, Z43½. Sample of seidlitz powders manufactured by Lambert & Lowman, Detroit, and procured from J. H. Watson, Ithaca. Not

U. S. P. Blue papers do not contain sufficient of the mixture of sodium bi-carbonate, potassium and sodium tartrate.

## SPIRITS CAMPHOR.

No. 24588, E-247. Sample of spirits camphor manufactured and sold by Oscar A. Marfileus, Standish. Sample contains an excessive amount of water.

No. 24727, E-271. Sample of spirits camphor manufactured and sold by C. G. Pitkin & Co., White Hall. Not U. S. P. Contains an excessive amount of water.

No. 24818, E-275. Sample of spirits camphor manufactured by John E. McDonald, Detroit. Not U. S. P. Contains an excessive amount of water.

No. 26395, Z-7. Sample of spirits camphor manufactured and sold by Nelson Hower, Sturgis. Not U. S. P. Contains about 23% excess water.

No. 26489, Z-8. Sample of spirits camphor manufactured and sold by J. M. Gustin, Marshall. Does not conform to U. S. P. requirements in that it is low in camphor and contains added water.

No. 26717, Q-38. Sample of spirits camphor manufactured and sold by Frank Smith, 104 Congress St., Ypsilanti. Sample does not conform to U. S. P. requirements. Contains added water.

No. 27010, Q-82. Sample of spirits camphor manufactured and sold by A. E. A. Mummery, Saline. Not U. S. P. About seven times stronger than the U. S. P. standard.

No. 27316, Q-118. Sample of spirits camphor manufactured and sold by Jones Bros., 1653 Grand River Ave., Detroit. Not U. S. P. Contains 5% excessive camphor.

## SPIRITS NITRE.

No. 24819, Q-139. Sample of spirits nitre procured from A. H. Abrams, Lawrence. Not U. S. P. Low in ethyl nitrite.

No. 24823, Q-145. Sample of spirits nitre procured from J. N. Downey, 222 Myrtle St., Detroit. Not U. S. P. Low in ethyl nitrite.

No. 25024, Q-149. Sample of spirits nitre procured from A. F. Fischer, Hubbel. Not U. S. P. Low in ethyl nitrite.

No. 25228, E-304. Sample of spirits nitre procured from Weeks Drug Co., Bannister. Not U. S. P. Low in ethyl nitrite.

No. 25308, E-313. Sample of spirits nitre procured from W. F. Barth, Grand Rapids. Not U. S. P. Low in ethyl nitrite.

No. 25491, E-338. Sample of spirits nitre procured from James W. Adamson, Bay City. Not U. S. P. Low in ethyl nitrite.

No. 25577, Q-161. Sample of spirits nitre procured from W. A. Conley, Morrice. Not U. S. P. Low in ethyl nitrite.

No. 25955, E-416. Sample of spirits nitre manufactured and sold by the Peoples Drug Store, Cadillac. Sample is spirits of ether.

No. 26000, E-417. Sample of spirits nitre procured from E. W. Jongejan, Grand Rapids. Not U. S. P. Low in ethyl nitrite.

No. 26033, Q-232. Sample of spirits nitre procured from J. N. Downey, Detroit. Does not conform to statement on the label. Low in ethyl nitrite.

No. 27009, Q-81. Sample of spirits of nitre manufactured by the



Upjohn Co., Kalamazoo, and procured from A. E. A. Mummery, Saline. Not U. S. P. Low in ethyl nitrite.

No. 27014, Q-86. Sample of spirits of nitre manufactured and sold by Dr. O. N. Rice, Tipton. Not U. S. P. Practically no ethyl nitrite present.

#### SYRUP IODIDE OF IRON.

No. 26120, E-454. Sample of syrup of iodide of iron manufactured and sold by the Logre's Drug Store, Grand Rapids. Not U. S. P. Low in ferrous iodide.

#### TINCTURE GINGER.

No. 26088, Q-246. Sample of tincture ginger manufactured and sold by F. B. Drolet, Kalamazoo. Not U. S. P. Low in alcohol.

#### TINCTURE IODINE.

No. 24822, Q-144. Sample of tincture iodine manufactured and sold by Mrs. W. H. McFarland, Detroit. Below U. S. P. standard in potassium iodide.

No. 24899, Q-146. Sample of tincture iodine manufactured and sold by G. T. Haan, Holland. Not U. S. P. Low in iodine and potassium iodide.

No. 25025, Q-150. Sample of tincture iodine manufactured and sold by E. L. LaRocque, St. Ignace. Not U. S. P. Sample contains an excessive amount of iodine and no potassium iodide.

No. 25370, Q-158. Sample of tincture iodine manufactured and sold by J. B. Young, Detroit. Not U. S. P. Low in iodine and potassium iodide.

No. 25404, Q-159. Sample of tincture iodine manufactured and sold by Guy H. Webber, Dearborn. Not U. S. P. Low in potassium iodide.

No. 25815, Q-197. Sample of tincture iodine manufactured and sold by C. H. Potts, Detroit. Not U. S. P. Low in iodine and potassium iodide.

No. 26034, Q-233. Sample of tincture iodine manufactured and sold by F. S. Geppert, Detroit. Not U. S. P. Contains an excessive amount of iodine and is deficient in potassium iodide.

No. 26086, Q-244. Sample of tincture iodine manufactured and sold by M. E. Luther, Kalamazoo. Not U. S. P. Contains an excessive amount of iodine and is deficient in potassium iodide.

No. 26365, Q-14. Sample of tincture iodine manufactured and sold by the Progressive Drug Co., Detroit. Not U. S. P. Low in iodine and potassium iodide.

No. 26445, Q-22. Sample of tincture iodine manufactured and sold by C. J. Gerondale, Detroit. Not U. S. P. Low in iodine and potassium iodide.

No. 26514, Q-27. Sample of tincture iodine manufactured and sold by Frank L. McIntyre, 387 Baker St., Detroit. Does not conform to U. S. P. requirements. Contains an excessive amount of iodine and is deficient in potassium iodide.

No. 26803, Q-49. Sample of tincture iodine manufactured by the Northrup, Robertson, Carrier Co., Lansing, and procured from J. M. Shaft, Shaftsbury. Does not conform to U. S. P. in that it is low in potassium iodide.

No. 27013, Q-85. Sample of tincture iodine manufactured and sold by L. B. Hittle, Clinton. Not U. S. P. Low in iodine and potassium iodide.

No. 27451, Q-134. Sample of tincture iodine manufactured and sold by John L. Gale, Plymouth. Not U. S. P. Low in iodine and potassium iodide.

#### TINCTURE NUX VOMICA.

No. 25805, Q-187. Sample of tincture nux vomica manufactured and sold by Doty Bros., Detroit. Not U. S. P. Low in strychnine.

No. 25946, E-407. Sample of tincture nux vomica manufactured and sold by B. A. Herman, Charlevoix. Not U. S. P. Low in strychnine.

No. 25999, Q-225. Sample of tincture nux vomica manufactured and sold by F. A. Potter, St. Joseph. Not U. S. P. Low in strychnine.

No. 26036, Q-235. Sample of tincture nux vomica manufactured and sold by M. C. Pendleton, Detroit. Not U. S. P. Low in strychnine.

No. 26081, Q-239. Sample of Tincture nux vomica manufactured and sold by V. E. Spaulding, Kalamazoo. Not U. S. P. Low in strychnine.

No. 26154, E-462. Sample of tincture nux vomica manufactured and sold by P. E. Biddlecomb, Detroit. Not U. S. P. Low in strychnine.

#### TINCTURE OPIUM.

No. 24584, E-243. Sample of tincture opium manufactured and sold by Hoffman Bros., Owosso. Not U. S. P. Low in morphine.

No. 24586, E-245. Sample of tincture opium manufactured and sold by Sprague & Co., Owosso. Not U. S. P. Low in morphine.

No. 24591, E-250. Sample of tincture opium manufactured and sold by J. Smith & Son, Saginaw. Not U. S. P. Low in morphine.

No. 24666, E-251. Sample of tincture opium manufactured and sold by John F. Roberts, Akron. Not U. S. P. Low in morphine.

No. 24667, E-252. Sample of tincture opium manufactured and sold by John J. Campbell, Pigeon. Not U. S. P. Low in morphine.

No. 24668, E-253. Sample of tincture opium manufactured and sold by Fred Elder, Elkton. Not U. S. P. Low in morphine.

No. 24669, E-254. Sample of tincture opium manufactured and sold by Cornell & Schiele, Elkton. Not U. S. P. Low in morphine.

No. 24670, E-255. Sample of tincture opium manufactured and sold by Yake & Cameron, Kinde. Not U. S. P. Low in morphine.

No. 24671, E-256. Sample of tincture opium manufactured and sold by O. E. Kewley, Bad Axe. Not U. S. P. Low in morphine.

No. 24672, E-257. Sample of tincture opium manufactured and sold by Lane & Lane, Bad Axe. Not U. S. P. Low in morphine.

No. 24673, E-258. Sample of tincture opium manufactured and sold by Dolson Drug Co., Saginaw. Not U. S. P. Low in morphine.

No. 24726, E-270. Sample of tincture opium manufactured and sold by S. N. Snow, Ludington. Not U. S. P. Low in morphine.

No. 24728, E-272. Sample of tincture opium manufactured and sold by Van I. Witt, Grand Haven. Not U. S. P. Low in morphine.

No. 24821, Q-143. Sample of tincture opium manufactured and sold by W. O. Borbonnais, Detroit. Not U. S. P. Low in morphine.

No. 24893, E-285. Sample of tincture opium manufactured and sold by Geo. Wood, Flint. Not U. S. P. Low in morphine.

No. 25023, Q-148. Sample of tincture opium manufactured and sold by A. F. Fischer, Hubbell. Not U. S. P. Low in morphine.

No. 25195, E-294. Sample of tincture opium manufactured and sold by W. H. Quigley, Grand Rapids. Not U. S. P. Low in morphine.

No. 25199, E-298. Sample of tincture opium manufactured and sold by A. J. Gibson, Grand Rapids. Not U. S. P. Low in morphine.

No. 25222, Q-152. Sample of tincture opium manufactured and sold by Von W. Furniss, Nashville. Not U. S. P. Low in morphine.

No. 25230, E-306. Sample of tincture opium manufactured and sold by E. A. Anderson, Clare. Not U. S. P. Low in morphine.

No. 25281, Q-156. Sample of tincture opium manufactured and sold by George Noetzel, Detroit. Not U. S. P. Low in morphine.

No. 25307, E-312. Sample of tincture opium manufactured and sold by C. F. Frost, Grand Rapids. Not U. S. P. Low in morphine.

No. 25368, E-318. Sample of tincture opium manufactured and sold by the Crescent Pharmacy, Detroit. Not U. S. P. Low in morphine.

No. 25396, E-322. Sample of tincture opium manufactured and sold by Geo. E. Williamson, Port Huron. Not U. S. P. Low in morphine.

No. 25405, Q-160. Sample of tincture opium manufactured and sold by Guy H. Webber, Dearborn. Not U. S. P. Low in morphine.

No. 25650, Q-166. Sample of tincture opium manufactured and sold by J. A. Cooper, Fowlerville. Not U. S. P. Low in morphine.

No. 25655, E-356. Sample of tincture opium manufactured and sold by Strong Bros., Reed City. Not U. S. P. Low in morphine.

No. 25774, E-383. Sample of tincture opium manufactured and sold by Shephard & Bachman, Stanton. Not U. S. P. Low in morphine.

No. 25777, E-386. Sample of tincture opium manufactured and sold by H. P. Beebe, Edmore. Not U. S. P. Low in morphine.

No. 25799, Q-181. Sample of tincture opium manufactured and sold by G. W. Stevens, Detroit. Not U. S. P. Low in morphine.

No. 26143, Q-254. Sample of tincture opium manufactured and sold by Walsh Drug Co., Holland. Not U. S. P. Low in morphine.

No. 26550, Z-11. Sample of tincture opium manufactured and sold by J. A. Morrison, Rockford. Does not conform to U. S. P. in that it is low in morphine.

No. 26804, Q-50. Sample of tincture opium manufactured and sold by W. L. Robson, Williamston. Does not conform to U. S. P. in that it is low in morphine.

#### T. T. CODEINE TABLETS.

No. 27347, Z-71. Sample of  $\frac{1}{4}$  gr. T. T. codeine tablets manufactured by the Upjohn Co., Kalamazoo, and procured from the W. C. Spring Drug Co., East Jordan. Misbranded. Tablets do not contain  $\frac{1}{4}$  grain of codeine.

No. 27409, Z-72. Sample of  $\frac{1}{2}$  gr. codeine tablets sold by Frank W. Kerr, Detroit, and procured from R. W. Johnson, Three Rivers. Misbranded. Tablets do not contain  $\frac{1}{2}$  grain of codeine sulphate.

#### T. T. NITRO GLYCERINE.

No. 26760, Q-47. Sample of  $\frac{1}{100}$  gr. T. T. nitro glycerine tablets manufactured by the Ray Chemical Co., Detroit, and procured from C. W. Bennett, Bancroft. Nitro glycerine per tablet, none. Does not conform to statements on label.

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**PROSECUTIONS.**

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## STATEMENT OF PROSECUTIONS.

FISCAL YEAR ENDING JUNE 30, 1913.

Cases pending July 1, 1912.....	7
Cases commenced during fiscal year.....	102

### CASES DISPOSED OF.

Before examining magistrates:	
Defendants bound over.....	50
Defendants discharged.....	7
In trial courts:	
Defendants convicted .....	86
Defendants acquitted .....	1
Cases pending .....	15
Cases appealed .....	5
Cases pending on appeal.....	3

# IN TRIAL COURTS.

Defendants.	Subject of violation.	County.	Sentence.
Peter Pascalone.....	Insanitary bakery.	Calhoun.....	Dismissed.
Imperial Tea Company.....	Coffee compound.	Wayne.....	Fined \$25 and costs.
Arthur J. Sly.....	Meat.	Genesee.....	Dismissed.
M. S. Carney.....	Tr. iodine.	Van Buren.....	Fined \$25 and costs.
Cornelius Pastoor.....	Meat.	Kent.....	Fined \$50 and costs.
Davidson Bros.....	Insanitary market.	Eaton.....	Fined \$25 and costs.
H. H. Spencer.....	Ice cream.	Lenawee.....	*Fined \$25 and costs.
P. Courtright.....	Spirits nitre.	Wayne.....	Suspended.
Howard W. Houghton.....	Milk.	Grand Traverse.....	Fined \$10 and costs.
Albin Bye.....	Meat.	Kalamasoo.....	Fined \$25 and costs.
John Werkman.....	Milk.	Kalamasoo.....	Fined \$25 and costs.
Frank E. Dishrow.....	Milk.	Kalamasoo.....	Fined \$27.50 & costs.
James J. Hitchings.....	Meat.	Emmet.....	Suspended.
F. R. Willett.....	Milk.	Montcalm.....	Fined \$10.
David Bloss.....	Milk.	Montcalm.....	Fined \$80.
O. Suekey.....	Milk.	Montcalm.....	Fined \$10.
Archie Bogart.....	Milk.	Montcalm.....	Fined \$10.
M. Clancy.....	Milk.	Jackson.....	Fined \$5 and costs.
Ellis Jacobs.....	Ice cream.	Monroe.....	Fined \$25 and costs.
George Collier.....	Meat.	Ionia.....	Fined costs.
Marco Landini.....	Ice cream.	Houghton.....	Fined \$25 and costs.
Gust Baldoacini.....	Ice cream.	Berrien.....	Fined \$100 and costs.
H. O. Wilson.....	Ice cream.	Berrien.....	Fined \$100 and costs.
Ivan Carrel.....	Ice cream.	Berrien.....	Fined \$25 and costs.
Twin City Creamery Co.....	Ice cream.	Berrien.....	Fined \$100 and costs.
Christopher Trevarrow.....	Milk.	Houghton.....	Fined \$5 and costs.
Archie Gates.....	Milk.	Bay.....	Fined \$10 and costs.
John Mayer.....	Milk.	Monroe.....	Fined \$10 and costs.
Julius Newman.....	Milk.	Wayne.....	Fined \$25.
Alfred Kindle.....	Milk.	Washtenaw.....	Fined \$10 and costs.
Levi Cooley.....	Milk.	Genesee.....	Fined \$25 and costs.
Ralph Henney.....	Milk.	Ionia.....	Fined \$10 and costs.
Alfred Godfrey.....	Milk.	Hilledale.....	Fined \$10 and costs.
Henry H. Lamkin.....	Coffee.	Wayne.....	Fined \$25.
W. G. Longe & Son.....	Meat.	Ionia.....	Fined \$5 and costs.
W. A. Conley.....	Spirits nitre.	Shiawassee.....	Fined \$25 and costs.
The Chas. Uelmann Co., Ltd.....	Cider vinegar.	Wayne.....	Fined \$50.
George Cateapis.....	Oleomargarine.	Chippewa.....	Fined \$50 and costs.
Clark C. Northrup.....	Milk.	Kalamasoo.....	Fined \$25 and costs.
Bessie Fitzsimmons.....	Oleomargarine.	Wayne.....	Fined \$100.
Joseph Currier.....	Milk.	Hilledale.....	Fined \$10 and costs.
Library Tea Company.....	Lemon extract.	Wayne.....	Fined \$25.
Greenslade Oil Company.....	Vinegar.	Wayne.....	Fined \$50.
Library Tea Company.....	Imitation jelly.	Wayne.....	Fined \$50.
Wm. C. Jasper.....	Milk.	Berrien.....	Fined \$25 and costs.
Henry Van Orman (Otsego Hotel).....	Oleomargarine.	Jackson.....	Fined \$50 and costs.
Harry B. Wisner.....	Insanitary restaurant.	Kent.....	Fined \$25 and costs.
John Martin.....	Impure milk.	Charlevoix.....	Fined \$20 and costs.
M. A. Quandt.....	Milk.	Marquette.....	Acquitted.
Charles Rowe.....	Milk.	Marquette.....	Fined costs.
Wm. McLean.....	Oleomargarine.	Marquette.....	Fined costs.
Pennington Buckhout.....	Meat.	Kalamasoo.....	Fined \$60.
Abram Benfol.....	Insanitary market.	Kent.....	Deferred.
Applegate & Shephard.....	Oleomargarine.	Genesee.....	Fined \$50.
R. J. Johnson.....	Process butter.	Genesee.....	Fined \$25.
Charles Joseph.....	Oleomargarine.	Genesee.....	Fined \$50.
Henry Freudenberg.....	Oleomargarine.	Kent.....	Fined \$50.
Emil Lang.....	Milk.	Wayne.....	Fined \$100.
John Longman.....	Milk.	Wayne.....	Fined \$50.
Matthew Gobel.....	Milk.	Wayne.....	Fined \$100.
Wm. Niebert.....	Milk.	Wayne.....	Fined \$100.
C. F. Longton.....	Milk.	Wayne.....	Fined \$25 and costs.
John Noller.....	Milk.	Wayne.....	*Fined \$100.
Wm. H. Faber.....	Insanitary bakery.	Kent.....	Fined \$25 and costs.
Albert Stein.....	Hamburg steak.	Kent.....	Fined \$50 and costs.

## STATE OF MICHIGAN.

## IN TRIAL COURTS.—Continued.

Defendants.	Subject of violation.	County.	Sentence.
Edward Stineke.....	Milk.....	Oakland.....	Fined \$25.
Isaac Wagner.....	Insanitary market.....	Kent.....	Fined \$25.
John McCurdy.....	Milk.....	Ingham.....	Fined \$3 and costs.
Wm. Hofferbeth.....	Milk.....	Kalamasoo.....	Fined \$30 and costs.
Leotone Haas, Sr.....	Renovated butter.....	Kalamasoo.....	Fined \$25.
Willis S. Maxam.....	Renovated butter.....	Kalamasoo.....	Fined \$50.
Philip Allen.....	Insanitary bakery.....	Kent.....	Fined \$25 and costs.
Andrew Raisenen.....	Milk.....	Houghton.....	Fined \$2 and costs.
George T. Tilma.....	Oleomargarine.....	Kent.....	Fined \$50 and costs.
John H. Slenk.....	Oleomargarine.....	Kent.....	Fined \$50 and costs.
Wm. Yarger.....	Oleomargarine.....	Calhoun.....	Dismissed.
Isaac Van Westenbrugge.....	Lard.....	Kent.....	*Deferred.
Joseph Stoffel.....	Oleomargarine.....	Wayne.....	Deferred.
Carl R. Suhuman.....	Oleomargarine.....	Wayne.....	Fined \$50.
Fashbaugh & Jones.....	Meat.....	Kent.....	Fined \$25 and costs.
Frank C. Ouellett (City Restaurant).....	Oleomargarine.....	Houghton.....	Fined \$50 and costs.
L. C. Butler.....	Oleomargarine.....	Wayne.....	Deferred.
Arthur A. Hardke.....	Hamburg Steak.....	Berrien.....	Fined \$25 and costs.
Benjamin Luckner.....	Hamburg Steak.....	Berrien.....	Fined \$25 and costs.
Bothyl Grocery Co.....	Oleomargarine.....	Ottawa.....	Fined \$50 and costs.
Harm Koenes.....	Oleomargarine.....	Ottawa.....	Fined \$50 and costs.
J. J. Klaussen.....	Oleomargarine.....	Ottawa.....	Fined \$50 and costs.
Charles Hankey.....	Milk.....	Clinton.....	Fined \$30 and costs.
Peoples Mercantile Co.....	Oleomargarine.....	Ottawa.....	Fined \$50 and costs.
John Hoffman.....	Oleomargarine.....	Ottawa.....	Fined \$50 and costs.

\* Appealed.

## COURT PROCEEDINGS.

FISCAL YEAR ENDING JUNE 30, 1913.

## CASE NO. 744.

PEOPLE VS. ELMER E. ROUSE.

Charge: Selling ice cream below the legal standard.

In justice court, city of Benton Harbor. August 29, 1911: Complaint made. September 14, 1911: Defendant convicted. Fined \$100 and costs. Case appealed.

## CASE NO. 772.

PEOPLE VS. PETER PASCALENOS.

Charge: Conducting an insanitary restaurant.

In justice court, city of Battle Creek, April 26, 1912: Complaint made. November 18, 1912: Case dismissed.

## CASE NO. 774.

PEOPLE VS. LAFER BROS.

Charge: Illegal advertisement of oleomargarine.

In police court, city of Detroit. May 8, 1912: Complaint made. May 17, 1912: Defendant bound over to recorder's court. September 5, 1912: Motion to quash complaint granted.

## CASE NO. 775.

PEOPLE VS. IMPERIAL TEA COMPANY.

Charge: Selling coffee compound not labeled.

In police court, city of Detroit. May 14, 1912: Complaint made. May 21, 1912: Defendant bound over to recorder's court. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 780.

PEOPLE VS. ARTHUR J. SLY.

Charge: Selling decomposed meat.

In justice court, city of Flint. June 5, 1912: Complaint made. June 6, 1912: Defendant waived examination. December 5, 1912: Case dismissed on motion.

## CASE NO. 782.

PEOPLE VS. M. S. CARNEY.

Charge: Selling tr. Iodine not in conformity with U. S. P. requirements.

In justice court, city of Paw Paw. June 17, 1912: Complaint made. Defendant entered a plea of guilty. Fined 25 and costs.

## CASE NO. 784.

PEOPLE VS. CORNELIUS PASTOOR.

Charge: Using sulphites in the preparation of meat products.

In police court, city of Grand Rapids. June 26, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$50.

## CASE NO. 785.

PEOPLE VS. DAVIDSON BROS.

Charge: Maintaining an insanitary meat market.

In justice court, city of Charlotte. July 3, 1912: Complaint made. July 15, 1913: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 786.

PEOPLE VS. H. H. SPENCER.

Charge: Selling ice cream below legal standard.

In justice court, city of Morenci. July 3, 1912: Complaint made. July 30, 1912: Defendant convicted. Fined \$25 and costs. Case appealed. January 13, 1913: Case nolle prossed.

## CASE NO. 787.

PEOPLE VS. F. COURTRIGHT.

Charge: Selling Spirits Nitre not in conformity with U. S. P. requirements

In police court, city of Detroit. July 3, 1912: Complaint made. July 19, 1912: Defendant bound over to recorder's court. September 13, 1912: Defendant convicted. Sentence suspended.

## CASE NO. 788.

PEOPLE VS. HOWARD W. HOUGHTON.

Charge: Selling adulterated milk.

In justice court, city of Traverse City. July 15, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.



## STATE OF MICHIGAN.

## CASE NO. 789.

PEOPLE VS. ALBIN SYC.

Charge: Having in possession with intent to sell tainted meat.

In municipal court, city of Kalamazoo. July 23, 1912: Complaint made. Defendant waived examination and was bound over to the circuit court for trial. July 27, 1912: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 790.

PEOPLE VS. JOHN WERKMAN.

Charge: Selling adulterated milk.

In municipal court, city of Kalamazoo. July 27, 1912: Complaint made. July 27, 1912: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 791.

PEOPLE VS. FRANK E. DISBROW.

Charge: Selling adulterated milk.

In justice court, city of Kalamazoo. July 30, 1912: Complaint made. July 30, 1912: Examination held. Defendant entered a plea of guilty. Fined \$27.50 and costs.

## CASE NO. 792.

PEOPLE VS. JAMES J. HITCHINS.

Charge: Having in possession with intent to sell tainted meat.

In justice court, city of Petoskey. August 2, 1912: Complaint made. August 3, 1912: Defendant bound over to circuit court for trial. September 3, 1912: Defendant entered a plea of guilty. Sentence suspended.

## CASE NO. 793.

PEOPLE VS. F. R. WILLETT.

Charge: Selling adulterated milk.

In justice court, Bloomer Twp., Montcalm county. August 16, 1912: Complaint made. August 16, 1912: Defendant convicted. Fined \$10.

## CASE NO. 794.

PEOPLE VS. DAVID BLOSS.

Charge: Selling adulterated (skimmed) milk.

In justice court, Crystal Twp., Montcalm county. August 16, 1912: Complaint made. August 16, 1912: Defendant convicted. Fined \$10.

## CASE NO. 795.

PEOPLE VS. O. SUEKEY.

Charge: Selling adulterated (skimmed) milk.

In justice court, Crystal Twp., Montcalm county. August 16, 1912: Complaint made. August 16, 1912: Defendant convicted. Fined \$10.

## CASE NO. 796.

PEOPLE VS. ARCHIE BOGART.

Charge: Selling adulterated (skimmed) milk.

In justice court, Crystal Twp., Montcalm county. August 16, 1912: Complaint made. August 16, 1912: Defendant convicted. Fined \$10.

## CASE NO. 797.

PEOPLE VS. JOHN STRAHAN.

Charge: Manipulation of Babcock test.

In justice court, city of Ionia. August 26, 1912: Complaint made. September 11, 1912: Jury disagree. New trial ordered. Case nolle prossed.

## CASE NO. 798.

PEOPLE VS. M. CLANCY.

Charge: Selling adulterated milk.

In justice court, city of Jackson. September 6, 1912: Complaint made. September 11, 1912: Examination held. Defendant entered a plea of guilty. Fined \$5 and costs.

## CASE NO. 799.

PEOPLE VS. ELLIS JACOBS.

Charge: Selling ice cream below the legal standard.

In justice court, city of Monroe. September 10, 1912: Complaint made. October 3, 1912: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 800.

PEOPLE VS. GEORGE COLLIER.

Charge: Using sulphites in the manufacture of meat products.

In justice court, city of Ionia. September 11, 1912: Complaint made. September 14, 1912: Examination held. Bound over to circuit court for trial. October 5, 1912: Defendant entered a plea of guilty. Fined costs amounting to \$6.

## CASE NO. 801.

PEOPLE VS. MARCO LANDINI.

Charge: Manufacturing and selling ice cream without a state license.

In justice court, village of South Range. September 12, 1912: Complaint made. September 12, 1912: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 802.

PEOPLE VS. GUST. BALDACCINI.

Charge: Selling ice cream below the legal standard.

In justice court, city of Benton Harbor. September 16, 1912: Complaint made. September 17, 1912: Examination held. Defendant entered a plea of guilty. Fined \$100 and costs.

## CASE NO. 803.

PEOPLE VS. H. O. WILSON.

Charge: Selling ice cream below the legal standard.

In justice court, city of Benton Harbor. September 16, 1912: Complaint made. September 17, 1912: Examination held. Defendant entered a plea of guilty. Fined \$100 and costs.

## CASE NO. 804.

PEOPLE VS. IVAN CARREL.

Charge: Selling ice cream below the legal standard.

In justice court, city of Berrien Springs. September 17, 1912: Complaint made.

September 17, 1912: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 805.

PEOPLE VS. TWIN CITY CREAMERY CO.

Charge: Selling ice cream below the legal standard.

In justice court, city of Benton Harbor. September 17, 1912: Complaint made. September 17, 1912: Examination held. Defendant entered a plea of guilty. Fined \$100 and costs.

## CASE NO. 806.

PEOPLE VS. CHRISTOPHER TREVARROW.

Charge: Selling adulterated (skimmed) milk.

In justice court, city of Calumet. September 18, 1912: Complaint made. September 18, 1912: Examination held. Defendant entered a plea of guilty. Fined \$5 and cost.

## CASE NO. 807.

PEOPLE VS. ARCHIE GATES.

Charge: Selling adulterated milk.

In justice court, city of Bay City. September 30, 1912: Complaint made. September 30, 1912: Examination held. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 808.

PEOPLE VS. JOHN MAYER.

Charge: Selling adulterated milk.

In justice court, city of Monroe. September 23, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 809.

PEOPLE VS. JULIUS NEWMAN.

Charge: Selling adulterated (watered) milk.

In justice court, city of Detroit. October 2, 1912: Complaint made. October 10, 1912: Examination held. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 810.

PEOPLE VS. ALFRED KINDLE.

Charge: Selling adulterated milk.

In justice court of Milan. October 12, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 811.

PEOPLE VS. LEVI COOLEY.

Charge: Selling adulterated milk.

In justice court, city of Flint. October 16, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 812.

PEOPLE VS. RALPH HENNEY.

Charge: Selling adulterated milk.

In justice court, city of Lake Odessa. October 17, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 813.

PEOPLE VS. ALFRED GODFREY.

Charge: Selling adulterated milk.

In justice court, city of Hillsdale. October 28, 1912: Complaint made. November 29, 1912: Examination held. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 814.

PEOPLE VS. HARRY H. LAMKIN.

Charge: Selling adulterated coffee.

In police court, city of Detroit. October 29, 1912: Complaint made. November 26, 1912: Defendant bound over to recorder's court for trial. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 815.

PEOPLE VS. W. G. LONGE &amp; SON.

Charge: Using sulphites in the manufacture of meat products.

In justice court, city of Ionia. September 11, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$5 and costs.

## CASE NO. 816.

PEOPLE VS. W. A. CONLEY.

Charge: Selling spirits nitre not in conformity with U. S. P. requirements.

In justice court, city of Corunna. November 6, 1912: Complaint made. November 7, 1912: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 817.

PEOPLE VS. THE CHAS. UELSMANN CO. LTD.

Charge: Selling adulterated cider vinegar.

In police court, city of Detroit. November 7, 1912: Complaint made. November 25, 1912: Defendant convicted by jury. Sentenced to 90 days in House of Correction. November 25, 1912: Defendant filed bond and appealed to recorder's court. December 17, 1912: Defendant convicted. Fined \$50 or 30 days in House of Correction. Fine paid.

## CASE NO. 818.

PEOPLE VS. GEO. CATASPIA.

Charge: Serving oleomargarine in dining room without displaying sign.

In justice court, city of Sault Ste. Marie. November 12, 1912: Complaint made. November 13, 1912: Examination held. Bound over to circuit court for trial. December 2, 1912: Defendant entered a plea of guilty. Fined \$50 and cost.

## CASE NO. 819.

PEOPLE VS. SANITARY RESTAURANT, CHRIST GHITSAS, PROP.

Charge: Selling adulterated milk.

In justice court, city of Flint. November 21, 1912: Complaint made. November 21, 1912: Jury disagree. Case set for retrial. December 26, 1912: Defendant paid \$20 costs. Case dismissed.

## STATE OF MICHIGAN.

## CASE NO. 820.

PEOPLE VS. CLARK C. NORTHEUP.

Charge: Insanitary conditions surrounding the production and sale of milk.  
In justice court, city of Kalamazoo. November 20, 1912: Complaint made.  
November 22, 1912: Examination held. Bound over to circuit court for trial.  
November 25, 1912: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 821.

PEOPLE VS. BESSIE FITZSIMMONS.

Charge: Selling oleomargarine without displaying sign.  
In police court, city of Detroit. November 24, 1912: Complaint made. December 6, 1912: Examination held. Bound over to recorder's court for trial. December 19, 1912: Defendant convicted. Fined \$100.

## CASE NO. 822.

PEOPLE VS. JOSEPH CURRIE.

Charge: Selling watered milk.  
In justice court, city of Hillsdale. December 17, 1912: Complaint made. Defendant entered a plea of guilty. Fined \$10 and costs.

## CASE NO. 823.

PEOPLE VS. LIBRARY TEA COMPANY.

Charge: Selling lemon extract below the legal standard.  
In police court, city of Detroit. December 23, 1912. Complaint made. January 28, 1913: Defendant bound over to recorder's court for trial. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 824.

PEOPLE VS. GREENSLADE OIL CO.

Charge: Selling adulterated vinegar.  
In police court, city of Detroit. January 6, 1913: Complaint made. February 5, 1913: Defendant bound over to recorder's court for trial. May 3, 1913: Defendant entered a plea of guilty. Fined \$50.

## CASE NO. 825.

PEOPLE VS. LIBRARY TEA COMPANY.

Charge: Selling compound glucose apple jelly artificially colored.  
In police court, city of Detroit. December 23, 1912: Complaint made. January 28, 1913: Defendant bound over to recorder's court for trial. Defendant entered a plea of guilty. Fined \$50.

## CASE NO. 826.

PEOPLE VS. WM. C. JASPER.

Charge: Selling adulterated milk.  
In justice court, city of St. Joseph. January 7, 1913: Complaint made. January 7, 1913. Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 827.

PEOPLE VS. OTSEGO HOTEL, HENRY VAN ORMAN, PROP.

Charge: Serving oleomargarine without displaying sign.  
In police court, city of Jackson. February 19, 1913: Complaint made. Defendant waived examination and was bound over to circuit court for trial. March 1, 1913. Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 828.

PEOPLE VS. HARBY B. WISNER.

Charge: Conducting an insanitary restaurant.  
In police court, city of Grand Rapids. March 3, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 829.

PEOPLE VS. A. F. BROOKS.

Charge: Selling oleomargarine artificially colored.  
In justice court, city of Detroit. March 11, 1913: Complaint made. Case pending.

## CASE NO. 830.

PEOPLE VS. JOHN MARTIN.

Charge: Selling impure and unwholesome milk.  
In justice court, city of Charlevoix. March 12, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$20 and costs.

## CASE NO. 831.

PEOPLE VS. M. A. QUANDT.

Charge: Selling adulterated milk.  
In justice court, city of Marquette. March 13, 1913: Complaint made. April 15, 1913: Trial by jury. Defendant acquitted.

## CASE NO. 832.

PEOPLE VS. CHAS. BOWE.

Charge: Selling adulterated milk.  
In justice court, city of Ishpeming. March 13, 1913: Complaint made. March 22, 1913: Examination held. Defendant entered a plea of guilty. Sentence suspended on payment of cost.

## CASE NO. 833.

PEOPLE VS. WM. MCLEAN.

Charge: Serving oleomargarine without displaying sign.  
In justice court, city of Ishpeming. March 13, 1913: Complaint made. Defendant entered a plea of guilty. Sentence suspended on payment of costs.

## CASE NO. 834.

PEOPLE VS. PENNINGTON BUCKHOUT.

Charge: Selling diseased meat.  
In justice court, city of Kalamazoo. March 17, 1913: Complaint made. Defendant bound over to circuit court for trial. March 19, 1913: Defendant entered a plea of guilty. Fined \$60.

STATE OF MICHIGAN.

CASE NO. 835.

PEOPLE VS. ABRAM SENFOL.

Charge: Conducting an insanitary meat market.

In police court, city of Grand Rapids. March 18, 1913: Complaint made. Defendant bound over to superior court for trial. Defendant entered a plea of guilty and was put in charge of probation officer to report weekly. Sentence deferred for one year.

CASE NO. 836.

PEOPLE VS. J. H. SHEPHARD (APPLEGATE & SHEPHARD).

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Flint. March 26, 1913: Complaint made. March 27, 1913: Examination held. Defendant bound over to circuit court for trial. April 2, 1913: Defendant entered a plea of guilty. Fined \$50.

CASE NO. 837.

PEOPLE VS. R. J. JOHNSON.

Charge: Selling process butter without stamping.

In justice court, city of Flint. March 26, 1913: Complaint made. March 27, 1913: Examination held. Defendant bound over to circuit court for trial. April 2, 1913: Defendant entered a plea of guilty. Fined \$25.

CASE NO. 838.

PEOPLE VS. CHAS. JOSEPH.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Flint. March 26, 1913: Complaint made. March 27, 1913: Examination held. Defendant bound over to circuit court for trial. April 2, 1913: Defendant entered a plea of guilty. Fined \$50.

CASE NO. 840.

PEOPLE VS. HENRY FREUDENBERG.

Charge: Violation of oleomargarine law.

In police court, city of Grand Rapids. March 27, 1913: Complaint made. Defendant bound over to superior court for trial. Defendant entered a plea of guilty. Fined \$50.

CASE NO. 841.

PEOPLE VS. EMIL LANG.

Charge: Selling adulterated milk.

In justice court, city of Detroit. March 31, 1913: Complaint made. April 23, 1913: Defendant convicted. Fined \$100.

CASE NO. 842.

PEOPLE VS. JOHN LONGMAN.

Charge: Selling adulterated milk.

In justice court, city of Detroit. March 31, 1913: Complaint made. April 13, 1913: Defendant convicted. Fined \$50.

## CASE NO. 843.

PEOPLE VS. MATTHEW GORDEL.

Charge: Selling adulterated milk.  
In justice court, city of Detroit. March 31, 1913: Complaint made. April 23, 1913: Defendant convicted. Case appealed. May 23, 1913: Appeal withdrawn and fine paid.

## CASE NO. 844.

PEOPLE VS. WM. NIERERT.

Charge: Selling adulterated milk.  
In justice court, city of Detroit. March 31, 1913: Complaint made. April 23, 1913: Defendant convicted. Fined \$100.

## CASE NO. 845.

PEOPLE VS. C. F. LONGTON.

Charge: Selling adulterated milk.  
In justice court, city of Detroit. March 31, 1913: Complaint made. May 7, 1913: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 846.

PEOPLE VS. JOHN NOLLER.

Charge: Selling adulterated milk.  
In justice court, city of Detroit. March 31, 1913: Complaint made. April 30, 1913: Defendant convicted. Fined \$100. Case appealed.

## CASE NO. 847.

PEOPLE VS. WM. H. FABER.

Charge: Conducting an insanitary bakery.  
In justice court, city of Grand Rapids. April 2, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 848.

PEOPLE VS. ALBERT STEIN.

Charge: Using sulphites in the manufacture of Hamburg Steak.  
In police court, city of Grand Rapids. April 4, 1913: Complaint made. April 4, 1913: Defendant bound over to superior court for trial. April 8, 1912: Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 849.

PEOPLE VS. EDWARD STINEKE.

Charge: Selling adulterated milk.  
In police court, city of Pontiac. April 9, 1913: Complaint made. April 24, 1913: Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 850.

PEOPLE VS. ISAAC WAPNER.

Charge: Conducting an insanitary meat market.  
In police court, city of Grand Rapids. April 9, 1913: Complaint made. April 10, 1913: Defendant bound over to superior court for trial. Defendant entered a plea of guilty. Fined \$25.



## STATE OF MICHIGAN.

## CASE NO. 851.

PEOPLE VS. JOHN MCCURDY.

Charge: Selling adulterated milk.

In justice court, city of Mason. April 14, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$3 and costs.

## CASE NO. 852.

PEOPLE VS. WM. HOFFERBETH.

Charge: Selling adulterated milk.

In municipal court, city of Kalamazoo. April 15, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$30 and costs.

## CASE NO. 853.

PEOPLE VS. LEOTONE HAAS, SR.

Charge: Selling renovated butter without stamping.

In municipal court, city of Kalamazoo. April 15, 1913: Complaint made. April 16, 1913: Examination held. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 854.

PEOPLE VS. WILLIS S. MAXAM.

Charge: Selling renovated butter without stamping.

In municipal court, city of Kalamazoo. April 15, 1913: Complaint made. April 16, 1913: Defendant waived examination and was bound over to circuit court for trial. April 17, 1913: Defendant entered a plea of guilty. Fined \$50.

## CASE NO. 855.

PEOPLE VS. PHILIP ALLEN.

Charge: Conducting an insanitary bakery.

In police court, city of Grand Rapids. April 23, 1913: Complaint made. April 24, 1913: Defendant bound over to superior court for trial. Defendant entered a plea of guilty. Fined \$25.

## CASE NO. 856.

PEOPLE VS. ANDREW RAISENEN.

Charge: Selling adulterated milk.

In justice court, city of Calumet. April 29, 1913. Complaint made. Defendant entered a plea of guilty. Fined \$2 and costs.

## CASE NO. 857.

PEOPLE VS. GEORGE T. TILMA.

Charge: Selling oleomargarine without displaying sign.

In police court, city of Grand Rapids. April 30, 1913: Complaint made. Defendant bound over to superior court for trial. May 31, 1913: Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 858.

PEOPLE VS. JOHN H. SLENK.

Charge: Violation of oleomargarine law.

In police court, city of Grand Rapids. April 23, 1913: Complaint made. April

24, 1913: Defendant bound over to superior court for trial. Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 859.

PEOPLE VS. WM. YARGER.

Charge: Selling oleomargarine without displaying sign.  
In justice court, city of Battle Creek. May 3, 1913: Complaint made. Case dismissed.

## CASE NO. 860.

PEOPLE VS. ARTHUR L. CHILSON.

Charge: Using sulphites in the manufacture of Hamburg Steak.  
In justice court, city of Battle Creek. May 3, 1913: Complaint made. Defendant bound over to circuit court for trial. Case pending.

## CASE NO. 861.

PEOPLE VS. ISAAC VAN WESTENBRUGGE.

Charge: Selling adulterated lard.  
In police court, city of Grand Rapids. May 5, 1913: Complaint made. May 6, 1913: Examination held. Bound over to superior court for trial. June 26, 1913: Defendant convicted. Case appealed.

## CASE NO. 862.

PEOPLE VS. IRA TEETERS.

Charge: Violation of oleomargarine law.  
In justice court, city of St. Joseph. May 15, 1913: Complaint made. Defendant waived examination. Bound over to the circuit court for trial. Case pending.

## CASE NO. 863.

PEOPLE VS. JOSEPH STOFFEL.

Charge: Selling oleomargarine without sign displayed.  
In police court, city of Detroit. May 19, 1913: Complaint made. June 12, 1913: Examination held. Bound over to recorder's court for trial. Defendant entered a plea of guilty. Sentence deferred.

## CASE NO. 864.

PEOPLE VS. CARL R. SCHUMAN.

Charge: Selling oleomargarine without displaying sign.  
In police court, city of Detroit. May 19, 1913: Complaint made. June 9, 1913: Examination held. Bound over to recorder's court for trial. June 16, 1913: Defendant entered a plea of guilty. Fined \$50.

## CASE NO. 865.

PEOPLE VS. HENRY O. MAENTZ.

Charge: Selling adulterated butter.  
In justice court, city of Allegan. May 22, 1913: Complaint made. Defendant waived examination and was bound over to circuit court for trial. Case pending.

## STATE OF MICHIGAN.

## CASE NO. 866.

PEOPLE VS. BESSIE FITZSIMMONS.

Charge: Selling colored oleomargarine.

In police court, city of Detroit. May 22, 1913: Complaint made. June 10, 1913: Examination held. Bound over to recorder's court for trial. Case pending.

## CASE NO. 867.

PEOPLE VS. WM. K. PICKARD.

Charge: Selling adulterated maple sugar.

In justice court, city of Kalamazoo. May 29, 1913: Complaint made. June 10, 1913: Examination held. Bound over to circuit court for trial. Case pending.

## CASE NO. 868.

PEOPLE VS. O. M. FALARSKI.

Charge: Using sulphites in meat products.

In police court, city of Grand Rapids. May 28, 1913: Complaint made. Bound over to superior court for trial. Case pending.

## CASE NO. 869.

PEOPLE VS. FASHBAUGH &amp; JONES.

Charge: Using sulphites in meat products.

In justice court, village of Lowell. May 31, 1913: Complaint made. June 11, 1913: Examination held. Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 870.

PEOPLE VS. FRANK C. OUELLETT. CITY RESTAURANT.

Charge: Serving oleomargarine without displaying sign.

In justice court, city of Houghton. May 31, 1913: Complaint made. June 2, 1913: Examination held. Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO 871.

PEOPLE VS. L. C. BUTLER.

Charge: Selling oleomargarine without displaying sign.

In police court, city of Detroit. June 2, 1913: Complaint made. June 11, 1913: Examination held. Bound over to recorder's court for trial. Defendant entered a plea of guilty. Sentence deferred.

## CASE NO. 872.

PEOPLE VS. THOS. M. FAUST.

Charge: Selling oleomargarine with sign not in conspicuous place.

In police court, city of Detroit. June 4, 1913: Complaint made. June 12, 1913: Examination held. Bound over to recorder's court for trial. Case pending.

## CASE NO. 873.

PEOPLE VS. ISAAC VAN WESTENBRUGGE.

Charge. Selling adulterated lard.

In police court, city of Grand Rapids. June 9, 1913: Complaint made. June 18, 1913: Examination held. Bound over to superior court for trial. Case pending.

## CASE NO. 874.

PEOPLE VS. ARTHUR A. HARDEE.

Charge: Using sulphites in Hamburg Steak.  
In justice court, city of St. Joseph. June 12, 1913: Complaint made. Defendant bound over to circuit court for trial. June 16, 1913: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 875.

PEOPLE VS. BENJAMIN LUCKER.

Charge: Using sulphites in Hamburg Steak.  
In justice court, city of St. Joseph. June 12, 1913: Complaint made. Defendant waived examination and was bound over to circuit court for trial. June 16, 1913: Defendant entered a plea of guilty. Fined \$25 and costs.

## CASE NO. 876.

PEOPLE VS. HENRY BOTBYL (BOTBYL GROCERY CO.)

Charge: Selling oleomargarine without displaying sign.  
In justice court, city of Grand Haven. June 13, 1913: Complaint made. June 13, 1913: Examination held. Bound over to circuit court for trial. June 20, 1913: Defendant entered a plea of guilty. Fine \$50 and costs.

## CASE NO. 877.

PEOPLE VS. HARM KOENES.

Charge: Selling oleomargarine without displaying sign.  
In justice court, city of Grand Haven. June 13, 1913: Complaint made. June 13, 1913: Examination held. Bound over to circuit court for trial. June 20, 1913: Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 878.

PEOPLE VS. J. J. KLAUSSEN.

Charge: Selling oleomargarine without displaying sign.  
In justice court, city of Grand Haven. June 13, 1913: Complaint made. June 13, 1913: Examination held. Bound over to circuit court for trial. June 20, 1913: Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 879.

PEOPLE VS. LEROY STEVENSON.

Charge: Sale of diseased hogs.  
In police court, city of Jackson. June 21, 1913: Complaint made. Case pending.

## CASE NO. 880.

PEOPLE VS. CHAS HACKLEY.

Charge: Selling adulterated milk.  
In justice court, city of St. Johns. June 9, 1913: Complaint made. Defendant entered a plea of guilty. Fined \$30 and costs.

## CASE NO. 881.

PEOPLE VS. JULIUS W. GOLDMAN.

Charge: Selling oleomargarine without displaying sign.  
In police court, city of Detroit. June 23, 1913: Complaint made. Defendant bound over to recorder's court for trial. Case pending.

## STATE OF MICHIGAN.

## CASE NO. 882.

PEOPLE VS. SEIGEL GUNN.

Charge: Selling colored oleomargarine.

In justice court, city of Holland. June 23, 1913: Complaint made. Case pending.

## CASE NO. 883.

PEOPLE VS. SEIGEL GUNN.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Holland. June 25, 1913: Complaint made. Case pending.

## CASE NO. 884.

PEOPLE VS. JACKSON CAFE.

Charge: Conducting an insanitary restaurant.

In police court, city of Jackson. June 23, 1913: Complaint made. Case pending.

## CASE NO. 885.

PEOPLE VS. ARTHUR L. CHILSON.

Charge: Selling adulterated lard.

In justice court, city of Battle Creek. June 30, 1913: Complaint made. Defendant waived examination. Bound over to circuit court for trial. Case pending.

## CASE NO. 886.

PEOPLE VS. WM. J. BAKER, (PEOPLE MERC. CO.)

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Grand Haven. June 13, 1913: Complaint made. June 13, 1913: Examination held. Bound over to circuit court for trial. June 20, 1913: Defendant entered a plea of guilty. Fined \$50 and costs.

## CASE NO. 887.

PEOPLE VS. JOHN HOFFMAN.

Charge: Selling oleomargarine without displaying sign.

In justice court, city of Grand Haven. June 13, 1913: Complaint made. June 13, 1913: Examination held. Bound over to circuit court for trial. June 20, 1913: Defendant entered a plea of guilty. Fined \$50 and costs.

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**FINANCIAL STATEMENT.**

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## FINANCIAL STATEMENT.

From July 1, 1912, to June 30, 1913.

Funds available July 1, 1912.....	\$35,000 00
Fees collected for registration of creameries, cheese factories, etc....	2,920 00
License fees collected for concentrated commercial feeding stuffs.....	4,260 00
Fees collected for milk dealers' licenses.....	1,512 00
Fees collected for ice cream manufacturers' licenses.....	1,410 00
Milk bottles sold, etc.....	20 45

**\$45,122 45**

### DISBURSEMENTS.

Gilman M. Dame, Commissioner, salary.....	\$1,083 33
James W. Helme, Commissioner, salary.....	916 67
James W. Helme, Deputy Commissioner, salary.....	812 50
Fern L. Shannon, State Analyst, salary.....	2,000 00
M. J. Smith, Chief Clerk, salary.....	1,500 00
L. H. Van Wormer, Assistant Chemist, salary.....	1,200 00
Ida M. Harris, Clerk, salary.....	1,000 00
Gertrude Valliers, Clerk, salary.....	940 00
Marston Johnston, Clerk, salary.....	334 20
Nan Childs, Clerk, salary.....	500 00
H. F. Wilson, Clerk, salary.....	146 50
Lillian Pomeroy, Clerk, salary.....	705 00
Frank J. McGrath, Clerk, salary.....	145 58
Gladys Dame, Clerk, salary.....	595 18
Edwin Shuler, Clerk, salary.....	70 00
Pauline Phillips, Clerk, salary.....	92 99
W. C. Geagley, Clerk, salary.....	19 78
John Munn, Regular Inspector, salary.....	500 00
A. C. Rowlander, Regular Inspector, salary.....	500 00
John B. Barron, Regular Inspector, salary.....	541 67
George N. Whipple, Regular Inspector, salary.....	1,000 00
John T. Rowe, Regular Inspector, salary.....	1,000 00
C. H. Geelhoed, Regular Inspector, salary.....	509 17
Chas. E. Aley, Regular Inspector, salary.....	235 00
Wm. T. Hulscher, Regular Inspector, salary.....	1,000 00
C. V. Jones, Regular Inspector, salary.....	458 33
Burr B. Lincoln, Regular Inspector, salary.....	447 23
James E. Helber, Regular Inspector, salary.....	447 23
Wm. J. Mickel, Regular Inspector, salary.....	336 10
D. A. Nichols, Regular Inspector, salary.....	349 99
D. J. Farrell, Special Inspector, salary.....	936 00
C. V. Jones, Special Inspector, salary.....	513 00
O. F. Melselbach, Special Inspector, salary.....	474 00
Harry A. Wilson, Special Inspector, salary.....	237 00
Russell E. Woodruff, Special Inspector, salary.....	414 00
Wm. J. Mickel, Special Inspector, salary.....	105 00
Henry F. Collins, Special Inspector, salary.....	324 00
Chas. R. Webb, Special Inspector, salary.....	324 00
Andrew H. Raikes, Special Inspector, salary.....	324 00
H. D. Wendt, Special Inspector, salary.....	153 00
Elmer Teall, Special Inspector, salary.....	513 00
Postage.....	1,401 31
Chemicals, laboratory supplies, etc.....	1,013 61
General expenses (see statement following).....	12,440 73
By balance.....	6,563 35

**\$45,122 45**



## STATE OF MICHIGAN.

## GENERAL EXPENSES INCLUDES.

Gilman M. Dame, expenses.....	\$602 89
James W. Helme, expenses.....	400 70
F. L. Shannon, expenses.....	493 11
L. H. Van Wormer, expenses.....	28 32
John Munn, expenses.....	373 35
A. C. Rowlander, expenses.....	385 57
John B. Barron, expenses.....	366 72
Geo. N. Whipple, expenses.....	292 55
John T. Rowe, expenses.....	777 36
C. H. Geelhoed, expenses.....	192 93
Chas. E. Aley, expenses.....	62 74
Wm. T. Hulscher, expenses.....	709 60
Elmer Teall, expenses.....	498 53
D. J. Farrell, expenses.....	740 30
C. V. Jones, expenses.....	992 11
O. F. Meiselbach, expenses.....	281 26
Harry A. Wilson, expenses.....	290 46
Frank J. McGrath, expenses.....	37 02
Burr B. Lincoln, expenses.....	319 01
James E. Helber, expenses.....	260 77
Russell E. Woodruff, expenses.....	333 90
Wm. J. Mickel, expenses.....	160 55
D. A. Nichols, expenses.....	202 64
Henry F. Collins, expenses.....	92 70
Chas. R. Webb, expenses.....	289 19
Andrew H. Raike, expenses.....	92 64
H. D. Wendt, expenses.....	181 38
Express.....	262 91
Messages.....	133 94
Incidentals.....	279 22
Equipment for the enforcement of Weights and Measures Act.....	2,306 36
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	\$12,440 73

## DRUG INSPECTION.

From July 1, 1912, to June 30, 1913.

Funds available July 1, 1912.....	\$6,000 00
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## DISBURSEMENTS.

A. R. Todd, Drug Analyst, salary.....	\$1,225 00
John E. Gerow, Inspector, salary.....	541 67
G. W. Sly, Inspector, salary.....	541 67
M. A. Jones, Inspector, salary.....	408 34
Chas. A. Bugbee, Inspector, salary.....	408 34
Nan Childs, Clerk, salary.....	500 00
General Expense.....	233 33
A. R. Todd, expenses.....	94 80
John E. Gerow, expenses.....	450 04
G. W. Sly, expenses.....	431 80
M. A. Jones, expenses.....	278 97
Chas. A. Bugbee, expenses.....	362 22
By Balance.....	523 82
	<hr/>
	\$6,000 00

## APIARY INSPECTION.

From July 1, 1912, to June 30, 1913.

Funds available .....	\$500 00
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## DISBURSEMENTS.

Frank Eric Millen, Apiary Inspector, salary and expenses	\$47 13
By Balance .....	452 87
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	\$500 00



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**CREAMERIES AND CHEESE FACTORIES.**

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# REGISTERED CREAMERIES, CHEESE FACTORIES, SKIMMING STATIONS, RECEIVING STATIONS, CONDENSED MILK FACTORIES, AND MILK DEPOTS.

FOR THE REGISTRATION YEAR BEGINNING APRIL 1, 1913.

## ALCONA COUNTY.

Name.	Owner or Manager.	Postoffice.
Alcona County Creamery, Mikado Cream Station,	Mrs. H. S. Johnson, Spencer & Howes,	Harrisville. Detroit.

## ALGER COUNTY.

Winters Cheese Factory,	Ed. Fehrman,	Winters.
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## ALLEGAN COUNTY.

Hamilton Skimming Station, Bravo Cream Station, Pullman Cream Station, Trowbridge Twp. Skimming Station, Oakland Creamery Co., Hillards Creamery, Overisel Creamery, Springdale Cheese Factory, East Saugatuck Creamery, Otsego Creamery, Kellogg Creamery, Benthelm Creamery, Hopkins Creamery, Miner Lake Skimming Station, Monterey Skimming Station, Fillmore Center Creamery, Pearl Cooperative Creamery Co., Moline Creamery, Overton Creamery, Dorr Creamery, Salem Creamery, Wayland Creamery, Albert Myers Cream Station, Daisy Creamery Co., Shelbyville Cream Station, Martin Creamery, Bradley Skimming Station, Moline Cream Station, Pullman Cream Station, Burnip's Corners Cheese Factory, New Salem Cheese Factory,	Phoenix Cheese Co., C. J. Lokker & Co., C. J. Lokker & Co., Gobleville Creamery Co., Jacob Vrideveld, Frank S. Jankoski, Overisel Creamery Co., M. W. Hicks, East Saugatuck Creamery Co., Otsego Creamery Co., Kellogg Creamery Co., Benthelm Creamery Co., Hopkins Creamery Co., Hopkins Creamery Co., Hopkins Creamery Co., Hopkins Creamery Co., Fillmore Centre Creamery Co., A. L. Brown, Mgr., Moline Cooperative Cre. Co., Overton Creamery Co., Overton Creamery Co., Overton Creamery Co., Frank Jankoski, Albert Myers, Henry Boeve, Michigan Butter Co., Martin Dairy and Produce Co., Rudell Creamery Co., Sanitary Milk Co., Sanitary Milk Co., W. H. Earls Cheese Co., W. H. Earls Cheese Co.,	Zeeland. Holland. Holland. Gobleville. Hamilton, No. 1. Wayland. Holland, R. 9. Hopkins. East Saugatuck. Otsego. Allegan. Hamilton, R. 3. Hopkins. Hopkins. Hopkins. Holland, R. 5. Pearl. Moline. Allegan. Allegan. Allegan. Wayland. Fullman. Graafschap. Kalamazoo. Martin. Grand Rapids. Grand Rapids. Grand Rapids. Lansing. Lansing.
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## ALPENA COUNTY.

Alpena Creamery,	Wm. A. Comstock,	Alpena.
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## ANTRIM COUNTY.

Alba Cream Station, Mancelona Cream Station,	Swift & Company, Swift & Company,	Alma. Alma.
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## ARENAC COUNTY.

D. Henry & Company Creamery, D. M. Scott Creamery, Warren & Company Milk Depot, North Cream Station, Turner Cream Station, Alger Cream Station,	D. Henry & Co., D. M. Scott, Warren & Co., Vasold Bros. & Co., Vasold Bros. & Co., Vasold Bros. & Co.,	Omer. Sterling. Au Gres. Bay City. Bay City. Bay City.
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## BARAGA COUNTY.

W. H. Oakley Milk Depot,	W. H. Oakley,	Covington.
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## STATE OF MICHIGAN.

## BARRY COUNTY.

Name.	Owner or Manager.	Postoffice.
Middleville Cooperative Cre. Assn.,	Fred O. Stokoe, Mgr.,	Middleville.
The Freeport Creamery,	Farmers Cooperative Cry. Co.,	Freeport.
Crystal Creamery Co.,	Jno. L. Sherk, Mgr.,	Hastings.
Woodland Skimming Station,	Crystal Creamery Co.,	Hastings.
Hastings Cream Station,	Swift & Co.,	Alma.
Nashville Creamery Co.,	A. C. Siebert,	Nashville.
Shultz Cooperative Creamery,	Shultz Cooperative Cry. Assn.,	Shultz.
Hickory Corners Creamery,	Jacob Veenstra,	Hickory Corners.

## BAY COUNTY.

Frankenlust Creamery,	Martin Schwab,	Bay City, Station A, R. 5.
Frankenlust Cheese Factory,	John Berger, Sr.,	Bay City, Station A, R. 5.
Monitor Cheese Factory,	LeRoy Reynolds,	Bay City, Station A, R. 4.
Kawkawlin Twp. Skimming Sta.,	Stevens Creamery Co.,	Bay City.
Herman Schultz Milk Depot,	Herman Schultz,	Bay City.
Fraser Cheese Factory,	Fraser Cheese Co.,	Pinconning, R. 5.
Bentley Cream Station,	Michigan Creamery Co.,	Saginaw.
Gibson Twp. Cheese Factory,	H. M. Schmidt Co.,	Saginaw, W. S.
Beaver Twp. Cheese Factory,	H. M. Schmidt Co.,	Saginaw, W. S.
Bay City Creamery,	Vasold Bros. & Co.,	Bay City.
Pinconning Creamery,	Vasold Bros. & Co.,	Bay City.
Nine Miles Cream Station,	Vasold Bros. & Co.,	Bay City.
Mt. Forest Cream Station,	Vasold Bros. & Co.,	Bay City.
Bentley Cream Station,	Vasold Bros. & Co.,	Bay City.
Mt. Forest Cream Station,	Vasold Bros. & Co.,	Bay City.
Crump Cream Station,	Vasold Bros. & Co.,	Bay City.
State Road Cream Station,	Vasold Bros. & Co.,	Bay City.
Linwood Cream Station,	Vasold Bros. & Co.,	Bay City.
Linwood Cream Station,	Vasold Bros. & Co.,	Bay City.
Linwood Cream Station,	Vasold Bros. & Co.,	Bay City.
Williams Twp. Skimming Station,	Vasold Bros. & Co.,	Bay City.
Pinconning Cream Station,	Towards Wayne County Cry. Co.,	Detroit.
Bay Shore Creamery,	A. T. Koscinski,	Pinconning.
Dicaire Bros. Cheese Factory,	Dicaire Bros.,	Pinconning.
Gladwin Cream Station,	Gladwin Butter Co.,	Bentley.
Linwood Cream Station,	Michigan Creamery Co.,	Saginaw.
Pinconning Cream Station,	Spencer & Howes,	Detroit.

## BENZIE COUNTY.

C. L. Foster Milk Station,	C. L. Foster,	Lake Ann.
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## BERRIEN COUNTY.

Pipestone Jersey Creamery,	Geo. T. Yetter,	Eau Claire, R. 2.
Watervliet Creamery,	Watervliet Creamery Co.,	Watervliet.
W. T. Parks Milk Depot,	W. T. Parks,	Benton Harbor.
St. Joseph Valley Creamery,	St. Joseph Valley Creamery Co.,	Buchanan.
Coloma Creamery,	Coloma Creamery Assn.,	Coloma.
Three Oaks Creamery,	Jno. Jacobson,	Chicago, Ill.
Galen Milk Condensing Factory,	Jno. Jacobson,	Chicago, Ill.
Hinchman Creamery,	A. C. Miller,	Berrien Springs.
Thorburn Bros. Milk Depot.,	Thorburn Bros.,	Benton Harbor.
Barlow Milk Depot,	Barlow Bros.,	St. Joseph.
Glendora Creamery,	Bishop Creamery Co.,	Buchanan.
Niles Creamery,	Niles Creamery Co.,	Niles.
Berrien Centre Elgin Cry. Co.,	D. E. Sharpe, Mgr.,	Berrien Center.
Dayton Creamery,	Dayton Creamery Co.,	Dayton.

## BRANCH COUNTY.

Coldwater Creamery,	L. C. Waite,	Coldwater.
Quincy Creamery,	Quincy Creamery Co.,	Quincy.
Stringtown Cheese Factory,	L. A. Downer,	Quincy.
Union City Creamery Co.,	H. A. Lake, Mgr.,	Union City.
Union City Cream Station,	Jackson Farm Produce Co.,	Jackson.
Sherwood Cream Station,	Jackson Farm Produce Co.,	Jackson.
Sherwood Cream Station,	Spencer & Howes,	Detroit.
Bronson Cream Station,	Jackson Farm Produce Co.,	Jackson.
Quincy Cream Station,	Towards Wayne Co. Creamery,	Detroit.

## CALHOUN COUNTY.

Battle Creek Sanitarium Creamery,	M. W. Wentworth, Mgr.,	Battle Creek.
Marshall Creamery,	Marshall Creamery Co.,	Marshall.
Albion Creamery,	Hartung & Austin,	Albion.
F. E. Mellin Milk Depot,	F. E. Mellin,	Battle Creek.
Burlington Creamery Co.,	Geo. L. Matteson,	Burlington.
Raymond & Rice Cream Depot,	Raymond & Rice,	Battle Creek.
Milk Producers Company Milk Depot,	F. W. Sullivan,	Battle Creek.
Athens Creamery Co.,	R. P. Wisner,	Athens.

## CALHOUN COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Marshall Cream Station,	Jackson Farm Produce Co.,	Jackson.
Athens Cream Station,	Jackson Farm Produce Co.,	Jackson.
Homer Cream Station,	Jackson Farm Produce Co.,	Jackson.
Tekonsha Cream Station,	Jackson Farm Produce Co.,	Jackson.
Albion Cream Station,	Jackson Farm Produce Co.,	Jackson.
Tekonsha Creamery,	H. E. Taylor,	Tekonsha.

## CASS COUNTY.

Vandalla Creamery,	Vandalla Creamery Co.,	Vandalla.
Cassopolis Creamery,	Cassopolis Creamery Co.,	Cassopolis.
Jones Creamery,	Jones Creamery Co.,	Jones.
Dowagiac Creamery & Butter Co.,	Jesse S. Green, Mgr.,	Dowagiac.
Marcellus Creamery,	Marcellus Creamery Co.,	Marcellus.
Bradfield Milk Depot,	W. M. Bradfield,	Dowagiac.

## CHARLEVOIX COUNTY.

Charlevoix Creamery,	Geo. Block,	Charlevoix.
Boyne Falls Cream Station,	Swift & Co.,	Alma.

## CHIPPEWA COUNTY.

W. H. Stribling Milk Depot,	W. H. Stribling, 419 Portage Ave.,	Sault Ste. Marie.
Rudyard Creamery,	Rudyard Dairy Assn.,	Rudyard.
Robert Fildman Milk Depot,	Robert Fildman,	Sault Ste. Marie.
Homestead Cream Station,	Swift & Co.,	Alma.

## CLARE COUNTY.

Clare Creamery,	Clare Creamery Co.,	Clare.
Clare Cream Station,	Swift & Co.,	Alma.
Farwell Cream Station,	Swift & Co.,	Alma.
Harrison Cream Station,	Swift & Co.,	Alma.
Clare Cream Station,	Michigan Creamery Co.,	Saginaw.
Harrison Cream Station,	Michigan Creamery Co.,	Saginaw.
Farwell Cream Station,	Towans Wayne County Cry. Co.,	Detroit.
Farwell Creamery,	Calkins-Schlegel Mercantile Co.,	Farwell.
Colonville Cream Station,	Michigan Creamery Co.,	Saginaw.
Clare Cream Station,	Eaton & Allen,	Saginaw.
Farwell Cream Station,	Eaton & Allen,	Ann Arbor.

## CLINTON COUNTY.

Maple Rapids Cheese Factory,	C. Erving Reist,	Maple Rapids.
Fowler Creamery,	Geller & Edinger,	Fowler.
Westphalia Creamery Co.,	A. A. Bauer, Mgr.,	Westphalia.
Eureka Cheese Factory,	John Coverdale,	Eureka.
Mapleton Cheese Factory,	John Coverdale,	Eureka.
Eureka Cream Station,	John Coverdale,	Eureka.
Ovid Creamery,	Warner & Freeman,	Farmington.
Westphalia Creamery,	Anthony P. Arens,	Westphalia.
Bath Cream Station,	Swift & Co.,	Alma.
Elsie Cream Station,	Swift & Co.,	Alma.
Maple Rapids Cream Station,	Swift & Co.,	Alma.
St. Johns Cream Station,	Swift & Co.,	Alma.
Eagle Cream Station,	Spencer & Howes,	Detroit.
Ovid Cream Station,	Durand Creamery Co.,	Durand.
St. Johns Cream Station,	Durand Creamery Co.,	Durand.
Elsie Powdered Milk Factory,	Ekenberg Company,	Elsie.
Ovid Receiving Station,	Ekenberg Company,	Elsie.
Dewitt Cream Station,	Island City Creamery,	Lansing.
St. Johns Cream Station,	Medina County Creamery Co.,	Detroit.
Shepardsville Cream Station,	Swift & Co.,	Alma.

## CRAWFORD COUNTY.

Frederic Cream Station,	Vasold Bros. & Co.,	Bay City.
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## DELTA COUNTY.

Schaffer Cheese Factory,	Alphonso Derocher, Mgr.,	Schaffer.
Bark River Creamery,	Phil Labre,	Bark River.
Garden Creamery,	Garden Creamery Co.,	Garden.
Valentine Milk Depot,	A. J. Valentine,	Escanaba.
Cloverland Creamery,	Baldwin & Vanenkevort,	Escanaba.

## DICKINSON COUNTY.

Norway Creamery,	Asselin Estate,	Norway.
Norway Creamery Co.,	Kopeland and others,	Norway.
Best Bros. Creamery,	Best Bros.,	Iron Mountain.



## EATON COUNTY.

Name.	Owner or Manager.	Postoffice.
Eaton Rapids Creamery,	A. M. Smith & Co.,	Eaton Rapids.
Bellevue Receiving Station,	Ray E. Stevens,	Bellevue.
Vermontville Creamery,	H. Gordon & Son,	Detroit.
Charlotte Creamery,	W. T. Leonard & Co.,	Norwood, N. Y.
Grand Ledge Cream Station,	Spencer & Howes,	Detroit.
Mulliken Cream Station,	Spencer & Howes,	Detroit.
Woodbury Cream Station,	Spencer & Howes,	Detroit.
Eaton Rapids Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Olivet Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Grand Ledge Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Mulliken Creamery,	Mulliken Creamery Co.,	Mulliken.
Sunfield Cream Station,	Island City Creamery,	Lansing.
Eaton Rapids Cream Station,	Island City Creamery,	Lansing.
Grand Ledge Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Sunfield Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Sunfield Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## EMMET COUNTY.

Alanson Cream Station,	Swift & Co.,	Alma.
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## GENESEE COUNTY.

Goodrich Dairy Assn. Creamery,	Goodrich Dairy Association,	Goodrich.
Fenton Creamery,	Halpin Creameries,	Detroit.
Montrose Cheese Factory,	M. C. Dowd,	Montrose.
Thetford Cheese Factory,	Thetford Cheese Co.,	Clio.
Burton Cheese Factory,	D. W. Richards, Mgr.,	Flint, R. 6.
Flushing Creamery,	Standard Butter Co.,	Flushing.
State Road Cheese Factory,	State Road Cheese Co.,	Clio.
Vienna Cheese Factory Assn.,	Chas. Knickerbocker, Mgr.,	Clio.
Montrose Home Creamery,	W. G. Herman,	Montrose.
Mt. Morris Cheese Factory,	T. H. Walker,	Mt. Morris.
Linden Cream Station,	Swift & Co.,	Alma.
Mt. Morris Cream Station,	Michigan Creamery Co.,	Saginaw.
Davidson Cream Station,	Port Huron Creamery Co.,	Port Huron.
R. W. Clement Milk House,	R. W. Clement, 839 Hamlin Ave.,	Flint.
Gaines Cream Station,	Spencer & Howes,	Detroit.
Genesee Cream Station,	Shaw & Cooney,	Davison.
Davison Creamery,	Shaw & Cooney,	Davison.
Freeman Dairy Co., Creamery,	Freeman Dairy Co.,	Flint.
Duffield Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.
Brent Creek Cream Station,	Durand Creamery Co.,	Durand.
Linden Cream Station,	Durand Creamery Co.,	Durand.
Gaines Cream Station,	Durand Creamery Co.,	Durand.
Argentine Cream Station,	Durand Creamery Co.,	Durand.
Flushing Creamery,	Standard Butter Co.,	Flushing.
Swartz Creek Cream Station,	Standard Butter Co.,	Flushing.
Clio Cream Station,	Standard Butter Co.,	Flushing.
Linden Cream Station,	Crouse & Parshall Dairy Pro. Co.,	Fenton.
Fenton Cream Station,	Freeman Dairy Co.,	Flint.
Otisville Cream Station,	Freeman Dairy Co.,	Flint.
Linden Cream Station,	Freeman Dairy Co.,	Flint.
Mt. Morris Cream Station,	Freeman Dairy Co.,	Flint.
Clio Milk Condensing Plant,	Clio Milk Condensing Co.,	Clio.

## GLADWIN COUNTY.

Beaverton Butter Co. Creamery,	Beaverton Butter Co.,	Beaverton.
Beaverton Cream Station,	Michigan Creamery Co.,	Saginaw.
Rhodes Cream Station,	Vasold Bros. & Co.,	Bay City.
Gladwin Cream Station,	Vasold Bros. & Co.,	Bay City.
Gladwin Cream Station,	Vasold Bros. & Co.,	Bay City.
Winegars Cream Station,	Vasold Bros. & Co.,	Bay City.
Estey Cream Station,	Vasold Bros. & Co.,	Bay City.
Gladwin Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Gladwin Creamery,	Gladwin Butter Co.,	Gladwin.
McClure Cream Station,	Gladwin Butter Co.,	Gladwin.
Hockaday Cream Station,	Gladwin Butter Co.,	Gladwin.
Oberlin Cream Station,	Gladwin Butter Co.,	Gladwin.
Wheatley Cream Station,	Gladwin Butter Co.,	Gladwin.
Wagarville Dairy Co., Creamery,	Wagarville Dairy Co.,	Gladwin R. F. D.

## GOGEbic COUNTY.

A. C. Buss Creamery,	A. C. Buss,	Ironwood.
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## GRAND TRAVERSE COUNTY.

Traverse City Creamery,	Traverse City Creamery Co.,	Traverse City.
A. W. Wiedoeft Milk Depot,	A. W. Wiedoeft, 443 Monroe St.,	Traverse City.
Fife Lake Cream Station,	Swift & Co.,	Alma.
Kingsley Cream Station,	Swift & Co.,	Alma.

## GRAND TRAVERSE COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Walton Cream Station.	Swift & Co.,	Alma.
Kingsley Cream Station.	Boylard Creamery Co.,	Grand Rapids.
Kingsley Cream Station.	Sanitary Milk Co.,	Grand Rapids.
Summit City Cream Station.	Sanitary Milk Co.,	Grand Rapids.
Angell Cream Station.	Sanitary Milk Co.,	Grand Rapids.

## GRATIOT COUNTY.

Cream O Cheese Co.,	Chittenden & Aldrich,	Ashley.
Brice Cream Station.	Durand Creamery Co.,	Durand.
Breckenridge Creamery.	Breckenridge Creamery Co.,	Breckenridge.
Ola Cheese Factory.	P. J. Wolf & Sons,	Pompeii.
H. J. Weed Cream Station.	H. J. Weed,	Breckenridge.
St. Louis Cheese Co.,	John Miner,	Wheeler.
Middleton Cheese Factory.	Geo. S. Hart Co.,	New York, N. Y.
Perrinton Cheese Factory.	Geo. S. Hart Co.,	New York, N. Y.
St. Louis Creamery.	Breckenridge Creamery Co.,	Breckenridge.
Bannister Cream Station.	Swift & Co.,	Alma.
Edgewood Cream Station.	Swift & Co.,	Alma.
Ithaca Cream Station.	Swift & Co.,	Alma.
Middleton Cream Station.	Swift & Co.,	Alma.
Newark Cream Station.	Swift & Co.,	Alma.
Ola Cream Station.	Swift & Co.,	Alma.
Riverdale Cream Station.	Swift & Co.,	Alma.
St. Louis Cream Station.	Swift & Co.,	Alma.
Wheeler Cream Station.	Swift & Co.,	Alma.
Rathbone Cream Station.	Swift & Co.,	Alma.
Alma Cream Station.	Breckenridge Creamery Co.	Breckenridge.
Brice Cream Station.	Durand Creamery Co.	Durand.
Middleton Cream Station.	Durand Creamery Co.,	Durand.
North Star Cream Station.	Durand Creamery Co.,	Durand.
Bannister Cream Station.	Durand Creamery Co.,	Durand.
Ithaca Creamery Co.,	Doran & McCredie,	Ithaca.
St. Louis Cream Station.	L. Barber & Co.,	Edmore.
Alma Creamery.	Swift & Co.,	Alma.
Elm Hall Cheese Factory.	W. H. Earls Cheese Co.,	Lansing.
Sickels Cheese Factory.	W. H. Earls Cheese Co.,	Lansing.

## HILLSDALE COUNTY.

Milnes Cornets Cheese Factory.	G. B. Elliott,	Jonesville, R. 7.
Montgomery Cheese Factory.	Montgomery Cheese Co.,	Montgomery.
North Adams Creamery.	A. W. Dean,	North Adams.
Somerset Cheese Factory.	Central Supply Co.,	Addison.
Wheatland Cheese Factory.	Central Supply Co.,	Addison.
Steambury Cheese Factory.	Bivins & Moore,	Hillsdale, R. 6.
Waldron Cheese Factory.	Waldron Cheese Co.,	Waldron.
Ransom Cheese Factory.	Ransom Cheese Co.,	Waldron.
Litchfield Dairy Association.	W. E. Sheldon, Mgr.,	Litchfield.
Oaks & Douglas Cheese Factory.	Oaks and Douglas,	Pittsford, R. 30.
E. W. Lewis Cheese Factory.	E. W. Lewis,	Osséo.
Reading Creamery.	W. T. Leonard & Co.,	Norwood, N. Y.
Wm. H. Smith & Son Creamery.	Wm. H. Smith & Son,	Camden.
Hillsdale Elgin Creamery Co.,	F. M. Smith,	Hillsdale.
Wright Township Cheese Factory.	M. M. Hinckley,	Pittsford.
Adams Twp. Cheese Factory.	M. M. Hinckley,	Pittsford.
Osséo Cheese Factory.	M. M. Hinckley,	Pittsford.
Hoxie, Wheatland Twp. Cheese Fac.,	M. M. Hinckley,	Pittsford.

## HOUGHTON COUNTY.

Barsotti Bros. Milk Depot.	Barsotti Bros.,	Calumet.
Bridgeman-Russell Creamery.	Bridgeman-Russell Co.,	Hancock.
Bruces Crossing Cream Depot.	Bridgeman-Russell Co.,	Hancock.

## HURON COUNTY.

Rice Bros. Cre. and Cheese Fac.,	Rice Bros.,	Elkton.
Fillon Creamery.	Fillon Creamery Co.,	Fillon.
Ruth Creamery.	Ruth Creamery Co.,	Ruth.
Uby Condensed Milk Factory.	Page Milk Co.,	Uby.
Huron County Creamery Co.,	John Ulrich, Mgr.,	Pigeon, R. 1.
Thumb Cooperative Creamery.	Thumb Cooperative Cre. Co.,	Sebewaing.
Kilmanagh Cheese Factory.	Fred M. Warner Cheese Co.,	Farmington.
Pinnebog Cheese Factory.	Fred M. Warner Cheese Co.,	Farmington.
Elmhurst Cheese Factory.	Smith & Warner,	Farmington.
Pigeon Creamery.	Fred M. Warner Cheese Co.,	Farmington.
Bad Axe Cream Station.	Michigan Creamery Co.,	Saginaw.
Port Austin Cream Station.	Michigan Creamery Co.,	Saginaw.
Ruth Cream Station.	Port Huron Creamery Co.,	Port Huron.
Uby Cream Station.	Port Huron Creamery Co.,	Port Huron.
Bad Axe Cream Station.	Port Huron Creamery Co.,	Port Huron.
Harbor Beach Cream Station.	Port Huron Creamery Co.,	Port Huron.
Port Hope Cream Station.	Port Huron Creamery Co.,	Port Huron.

## HURON COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Helena Cream Station,	Port Huron Creamery Co.,	Port Huron.
Caseville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Owendale Cream Station,	Port Huron Creamery Co.,	Port Huron.
Paris Twp. Cream Station,	Ruth Creamery Co.,	Ruth.
Paris Twp. Cream Station,	Ruth Creamery Co.,	Ruth.
Paris Twp. Cream Station,	Ruth Creamery Co.,	Ruth.
Harbor Beach Cream Station,	Michigan Creamery Co.,	Saginaw.
Grassmere Cream Station,	Michigan Creamery Co.,	Saginaw.
Harbor Beach Cream Station,	Medina County Creamery Co.,	Detroit.
Bad Axe Cream Station,	Freeman Dairy Co.,	Flint.
Palm Cream Station,	Freeman Dairy Co.,	Flint.
McGregor Cream Station,	Freeman Dairy Co.,	Flint.

## INGHAM COUNTY.

Lansing Condensed Milk Factory,	Mich. Condensed Milk Co.,	New York.
Morrison Bros. Milk Depot,	Morrison Bros.,	Lansing.
Lealie Butter Co.,	E. J. Kneibehler,	Leslie.
Stockbridge Creamery,	H. J. Klepert,	Stockbridge.
Williamston Cheese Factory,	H. J. Blivins,	Hudson.
Webberville Condensery,	Chapin & Socks Mfg. Co.,	Washington, D. C.
W. H. Winans & Sons Milk Depot,	W. H. Winans & Sons,	Lansing.
Bell Oak Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Onondaga Cream Station,	Jackson Farm Produce Co.,	Jackson.
Williamston Cream Station,	Spencer & Howes,	Detroit.
Mason Cream Station,	Towars Wayne Co. Creamery,	Detroit.
Island City Creamery,	J. W. Eaton, 506 Mich. Ave. E.,	Lansing.
Webberville Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Fitchburg Cream Station,	Jackson Farm Produce Co.,	Jackson.

## IONIA COUNTY.

Lake Odessa Condensed Milk Fac.,	Lake Odessa Milk Co.,	Lake Odessa.
Ionla Creamery,	Austin & Darling,	Ionla.
Clarksville Cooperative Creamery,	D. W. Lind, Mgr.,	Clarksville.
Farmers Cooperative Creamery,	D. G. Barton, Mgr.,	Saranac.
Orleans Creamery Assn.,	C. Liebum, Mgr.,	Orleans.
Collins Cream Station,	Swift & Co.,	Alma.
Lake Odessa Cream Station,	Swift & Co.,	Alma.
Lyons Cream Station,	Swift & Co.,	Alma.
Matherton Cream Station,	Swift & Co.,	Alma.
Portland Cream Station,	Swift & Co.,	Alma.
Saranac Cream Station,	Swift & Co.,	Alma.
Shiloh Cream Station,	Swift & Co.,	Alma.
Lake Odessa Cream Station,	Spencer & Howes,	Detroit.
Portland Cream Station,	Towars Wayne Co. Creamery,	Detroit.
Hubbardston Cream Station,	Durand Creamery Co.,	Durand.
Muir Cream Station,	Durand Creamery Co.,	Durand.
Muir Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Gates Milk Depot,	T. P. Gates,	Ionla.
Portland Creamery,	A. S. Nunneley,	Portland.
Lyons Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Belding Creamery,	Frank O'Bryon,	Belding.
Muir Cream Station,	Swift & Co.,	Alma.
Hubbardston Cream Station,	Swift & Co.,	Alma.

## IOSCO COUNTY.

Iosco Creamery Co.,	C. R. Webb & Mads Jensen,	Whittemore.
Tawas Butter Co.,	Geo. Falselt, Mgr.,	Tawas City.
Whittemore Creamery,	W. H. Pringle,	Whittemore.
Hale Cheese Factory,	John H. Carey,	Hale.

## ISABELLA COUNTY.

Mt. Pleasant Condensed Milk Fac.,	Mich. Condensed Milk Co.,	Mt. Pleasant.
Blanchard Creamery,	H. J. Sass,	Blanchard.
Ralph Short Milk Depot,	Ralph Short,	Mt. Pleasant.
J. F. Faulkner Milk Depot,	J. F. Faulkner,	Mt. Pleasant.
F. K. Palmer, Milk Depot,	F. K. Palmer,	Mt. Pleasant.
Shepard Creamery,	C. L. Hokenmeyer,	Shepard.
Rosebush Cream Station,	Swift & Co.,	Alma.
Shepherd Cream Station,	Swift & Co.,	Alma.
Weldman Cream Station,	Swift & Co.,	Alma.
Winn Cream Station,	Swift & Co.,	Alma.
Brinton Cream Station,	Michigan Creamery Co.,	Saginaw.
Delwin Cream Station,	Vasold Bros. & Co.,	Bay City.
Loomis Cream Station,	Vasold Bros. & Co.,	Bay City.
Leaton Cream Station,	Michigan Creamery Co.,	Saginaw.
Rosebush Cream Station,	Michigan Creamery Co.,	Saginaw.
Drew Cream Station,	Swift & Co.,	Alma.

## JACKSON COUNTY.

Name.	Owner or Manager.	Postoffice.
Brooklyn Creamery Co.,	A. W. Brooks, Mgr.,	Brooklyn.
Parma Butter Co., Creamery,	Parma Butter Co.,	Parma.
Elmer Bros. Creamery,	Elmer Bros.,	Devereaux.
Lakeside Elgin Butter Co.,	J. M. Rohrer,	Grass Lake.
Crystal Creamery Co.,	E. S. Wilcox, Mgr.,	Concord.
Jackson Condensed Milk Factory,	Mich. Condensed Milk Co.,	44 Hudson St., N. Y.
Jackson City Creamery,	Eaton & Allen,	Jackson.
McCain & Sheridan Milk Depot,	McCain & Sheridan,	Jackson.
Clarks Lake Creamery,	Emil Anderson,	Clarks Lake.
Horton Cream Station,	Jackson Farm Produce Co.,	Jackson.
Rives Cream Station,	Jackson Farm Produce Co.,	Jackson.
Springport Skimming Station,	A. M. Smith & Co.,	Eaton Rapids.
Spring Arbor Cream Station,	Jackson Farm Produce Co.,	Jackson.
Napoleon Cream Station,	Jackson Farm Produce Co.,	Jackson.
Springport Cream Station,	Island City Creamery,	Lansing.

## KALAMAZOO COUNTY.

Wm. C. Gibson Cream Station,	Wm. C. Gibson,	Scotts.
Scotts Creamery,	A. R. Pierce,	Scotts.
Alamo Valley Creamery,	H. M. Walker,	Alamo.
Kalamazoo Creamery Co.,	Howard W. Weeks, Mgr.,	Kalamazoo.
Michigan Butter Co.,	Howard W. Weeks, Mgr.,	Kalamazoo.
Bishop Creamery Co.,	Jack Bishop, Mgr.,	Vicksburg.
H. H. Snyder Cream Station,	H. H. Snyder,	Climax.
Riverside Creamery,	Burnham & Stafford,	Galesburg.
A. Gingell Creamery,	A. Gingell,	Climax.
Dairymens Milk Co.,	W. J. Kendall,	Kalamazoo.
Island Creamery,	McCreary & Erwin,	Schoolcraft.
Vicksburg Cream Station,	Boylan Creamery Co.,	Grand Rapids.
C. E. Lienhart Creamery,	C. E. Lienhart,	Kalamazoo.

## KALKASKA COUNTY.

Kalkaska Cream Station,	Swift & Co.,	Kalkaska.
South Boardman Cream Station,	Cadillac Ice Cream Co.,	Cadillac.
Kalkaska Cream Station,	Cadillac Ice Cream Co.,	Cadillac.
Sigma Cream Station,	Swift & Co.,	Alma.
Rowley Cream Station,	Swift & Co.,	Alma.
Kalkaska Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Darragh Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## KENT COUNTY.

Byron Centre Creamery Co.,	L. J. O'Singor, Mgr.,	Byron.
Sand Lake Creamery,	Mossner & Bishop,	Sand Lake.
Sparta Creamery,	P. C. Mossner,	Sparta.
Cedar Springs Creamery,	Kent Creamery Co.,	Grand Rapids.
Sand Lake Cream Station,	Kent Creamery Co.,	Grand Rapids.
Harvard Cream Station,	Kent Creamery Co.,	Grand Rapids.
Aaron Schiedel Milk Depot,	Aaron Schiedel,	Sparta.
C. J. Eberhard Milk Depot,	C. J. Eberhard,	Grand Rapids.
Jno. D. Vonk Creamery,	Jno. D. Vonk,	Grand Rapids.
Kent City Cheese Factory,	Peterson & Carlson,	Kent City.
Blue Valley Creamery,	Blue Valley Creamery Co.,	Grand Rapids.
Lowell Cream Station,	Swift & Co.,	Alma.
Rudell Creamery,	Rudell Creamery Co.,	Grand Rapids.
Cedar Springs Creamery,	Rudell Creamery Co.,	Grand Rapids.
Rockford Cream Station,	Rudell Creamery Co.,	Grand Rapids.
Caledonia Cooperative Creamery,	Caledonia Cooperative Cry. Co.,	Caledonia.
Boylan Creamery,	Boylan Creamery Co.,	Grand Rapids.
Grand Rapids Milk Depot,	A. Vonk & Son, 916 Wealthy St.,	Grand Rapids.
Grand Rapids Creamery,	Sanitary Milk Co.,	Grand Rapids.

## LAKE COUNTY.

Luther Cream Station,	Swift & Co.,	Alma.
Chase Cream Station,	Michigan Creamery Co.,	Saginaw.
Oliver Cream Station,	Michigan Creamery Co.,	Saginaw.
Edgetts Cream Station,	Leroy Creamery Co.,	Leroy.
Luther Cream Station,	Leroy Creamery Co.,	Leroy.
Nirvana Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## LAPEER COUNTY.

Almont Creamery,	Almont Creamery Co.,	Almont.
Peoples Creamery,	Thomas Stacey,	North Branch.
Lapeer County Creamery,	R. F. Frary,	Lapeer.
M. Goldberg Cream Station,	M. Goldberg,	Inlay City.
R. A. Butler Cream Station,	R. A. Butler,	Inlay City.
Lum Creamery,	Geo. McInally,	Lum.
Hadley Creamery,	Hadley District Dairy Assn.,	Hadley.

## LAPEER COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Five Lakes Cream Station,	Port Huron Creamery Co.,	Port Huron.
Kings Mill Cream Station,	Spencer & Howes,	Detroit.
Lum Cream Station,	Spencer & Howes,	Detroit.
Otter Lake Cream Station,	Shaw & Cooney,	Davison.
North Branch Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Columbiaville Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Elba Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Dryden Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Clifford Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Imlay City Creamery,	Imlay City Creamery Co.,	Imlay City.
Imlay City Cream Station,	Spencer & Howes,	Detroit.

## LEELANAU COUNTY.

L. L. Drake Creamery,	L. L. Drake,	Maple City,
Northport Creamery,	Leelanau Twp. Farmers Club,	Northport.

## LENAAWEE COUNTY.

Helvetia Milk Condensing Co.,	E. G. Meyer, Mgr.,	Hudson.
Addison Cheese Factory,	Central Supply Co.,	Addison.
Rollin Twp. Cheese Factory,	Central Supply Co.,	Addison.
Cadmus Milk Depot,	Clover Leaf Dairy Co.,	Toledo, Ohio.
Adrian Condensed Milk Co.,	Van Camp Packing Co.,	Indianapolis, Ind.
Maple City Creamery,	W. A. Barnaby,	Adrian.
Macon Creamery,	Macon Creamery Co.,	Tecumseh.
Cadmus Cheese Factory,	C. H. Garnsey,	Adrian.
Blissfield Creamery,	Blissfield Creamery Co.,	Blissfield.
Tecumseh Butter Co.,	McCoy & Ruthroff,	Tecumseh.
Wolf Creek Cheese Factory,	Stukey & Cooley,	Adrian.
Medina Cheese Factory,	F. A. Lester,	Hudson.
Barnaby & Delano Skimming Sta.,	Barnaby & Delano,	Jasper.
Cement City Cheese Factory,	L. G. Miller,	Cement City.
Munson Cheese Factory,	F. A. Lester,	Hudson, R. 3.
Driggs Dairy Farm,	H. H. Driggs,	Palmyra.
Onsted Cheese Factory,	L. R. Connor,	Onsted.
Rome Center Cheese Factory,	L. R. Connor,	Onsted.
Morenci Condensing Plant,	Ohio Dairy Co.,	Morenci.
Sand Creek Milk Depot,	Towards Wayne Co. Creamery,	Detroit.
Ennis Milk Depot,	Towards Wayne Co. Creamery,	Detroit.
Pentecost Cream Station,	Spencer & Howes,	Detroit.
Onsted Cream Station,	Spencer & Howes,	Detroit.
Devils Lake Cream Station,	Spencer & Howes,	Detroit.
Britton Cream Station,	Towards Wayne Co. Creamery,	Detroit.
Onsted Cream Station,	J. B. Daniels,	Onsted.

## LIVINGSTON COUNTY.

Howell Condensed Milk Factory,	Mich. Condensed Milk Co.,	New York.
Lyndon Cheese Factory (Anderson),	Lyndon Cheese Co.,	Stockbridge.
H. J. Watson Milk Depot,	H. J. Watson,	Howell.
Hartland Creamery,	Crouse & Parshall,	Hartland.
Cohoctah Cream Station,	Swift & Co.,	Alma.
Howell Cream Station,	Swift & Co.,	Alma.
Fowlerville Milk Depot,	Towards Wayne Co. Cry. Co.,	Detroit.
Brighton Creamery,	National Food Products Co.,	Detroit.
Fowlerville Cream Station,	Spencer & Howes,	Detroit.
Gregory Cream Station,	Spencer & Howes,	Detroit.
Pinckney Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.
Hamburg Cream Station,	Durand Creamery Co.,	Durand.
Cohoctah Cream Station,	Durand Creamery Co.,	Durand.
Cohoctah Cream Station,	Standard Butter Co.,	Flushing.

## MACKINAC COUNTY.

Engadine Butter Factory,	W. J. Rapin, Mgr.,	Engadine.
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## MACOMB COUNTY.

Armada Creamery,	C. M. Partch,	Armada.
Romeo Elgin Creamery,	Romeo Elgin Creamery Co.,	Romeo.
Richmond Creamery,	Wm. Zentgrebe,	Richmond.
Gatz Creamery,	Gatz Creamery Co.,	Mt. Clemens.
Macomb Skimming Station,	Gatz Creamery Co.,	Mt. Clemens.
New Baltimore Creamery,	New Baltimore Creamery Co.,	New Baltimore.
Cady Milk Depot,	Detroit Creamery Co.,	Detroit.
Mt. Clemens Milk Depot,	Detroit Creamery Co.,	Detroit.
Utica Milk Depot,	Detroit Creamery Co.,	Detroit.
New Haven Milk Depot,	Detroit Creamery Co.,	Detroit.
Ray Center Milk Depot,	Detroit Creamery Co.,	Detroit.
Muttonville Milk Depot,	Detroit Creamery Co.,	Detroit.
Mt. Clemens Creamery,	Chesterfield Creamery Co.,	Mt. Clemens.
Waldenburg Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.

## MACOMB COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Meade Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.
Mt. Clemens Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.
Meyers Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.
Petersville Skimming Station,	Chesterfield Creamery Co.,	Mt. Clemens.
Ray Creamery,	Davis Creamery Co.,	Washington.
Waldenburg Skimming Station,	Utica Cooperative Cry. Assn.,	Utica.
Disco Skimming Station,	Utica Cooperative Cry. Assn.,	Utica.
Utica Creamery,	Utica Cooperative Cry. Assn.,	Utica.
Memphis Cream Station,	Port Huron Creamery Co.,	Port Huron.
Lenox Cream Station,	Port Huron Creamery Co.,	Port Huron.
Washington Cream Station,	Spencer & Howes,	Detroit.
Lenox Cream Station,	Spencer & Howes,	Detroit.
New Haven Cream Station,	Spencer & Howes,	Detroit.

## MANISTEE COUNTY.

E. V. O'Rourke Creamery,	E. V. O'Rourke,	Bear Lake.
Copemish Cream Station,	Swift & Co.,	Alma.
Harlan Cream Station,	Swift & Co.,	Alma.
Kaleva Cream Station,	Swift & Co.,	Alma.
Marilla Cream Station,	Swift & Co.,	Alma.
Kaleva Cream Station,	Michigan Creamery Co.,	Saginaw.
Manistee Milk Depot,	W. Hatch Ice Cream Co.,	Manistee.
Copemish Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Harlan Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Kaleva Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## MARQUETTE COUNTY.

Skandia Creamery Co.,	Robt. Shaw, Pres.,	Skandia.
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## MASON COUNTY.

Alpha Creamery, (Scottville)	Axel Kehlet,	Ludington.
Wiley Cooperative Creamery,	Wiley Cooperative Cry. Co.,	Scottville, R. 2.
Fountain Creamery,	Fred W. Plunhoff,	Fountain.
Branch Cream Station,	Michigan Creamery Co.,	Saginaw.
Fountain Cream Station,	Michigan Creamery Co.,	Saginaw.
Tallman Cream Station,	Michigan Creamery Co.,	Saginaw.
Branch Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Custer Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Fountain Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## MECOSTA COUNTY.

Wheatland Twp. Creamery,	Remus Cooperative Assn.,	Remus.
Mecosta Milk Station,	McBride Creamery Co.,	McBride.
Big Rapids Creamery,	Model Cooperative Cry. Assn.,	Big Rapids.
Alcona Cream Station,	Swift & Co.,	Alma.
Barryton Cream Station,	Swift & Co.,	Alma.
Big Rapids Cream Station,	Swift & Co.,	Alma.
Chippewa Lake Cream Station,	Swift & Co.,	Alma.
Mecosta Cream Station,	Swift & Co.,	Alma.
Millbrook Cream Station,	Swift & Co.,	Alma.
Remus Cream Station,	Swift & Co.,	Alma.
Rodney Cream Station,	Swift & Co.,	Alma.
Morley Cream Station,	Swift & Co.,	Alma.
Paris Cream Station,	Swift & Co.,	Alma.
Stanwood Cream Station,	Swift & Co.,	Alma.
Morley Cream Station,	Rudell Creamery Co.,	Grand Rapids.
Crapo Cream Station,	Rudell Creamery Co.,	Grand Rapids.
Woodville Cream Station,	Model Cooperative Cry. Assn.,	Big Rapids.
Standwood Cream Station,	Model Cooperative Cry. Assn.,	Big Rapids.
Barryton Cream Station,	L. Barber & Co.,	Edmore.
Big Rapids Cream Station,	L. Barber & Co.,	Edmore.
Mecosta Cream Station,	L. Barber & Co.,	Edmore.
Remus Cream Station,	L. Barber & Co.,	Edmore.
Rodney Cream Station,	Ed Ketchum,	Rodney.
Weldman Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Pearson Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Paris Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Stanwood Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Borland Cream Station,	Swift & Co.,	Alma.
Titus Cream Station,	Swift & Co.,	Alma.
Stanwood Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## MENOMINEE COUNTY.

I. X. L. Creamery,	I. X. L. Creamery Co.,	Hermansville.
Nadeau Bros. Creamery,	Nadeau Bros.,	Nadeau.
C. I. Cook Creamery,	C. I. Cook,	Menominee.
Ingalls Creamery,	Ira Carley,	Ingalls.

## STATE OF MICHIGAN.

## MENOMINEE COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Stephenson Cheese Factory,	Wallie Landree,	Stephenson.
Chas. Elliott & Son Cheese Factory,	Chas. Elliott & Son,	Bark River.
Nadeau Cheese Factory,	S. J. Matheys,	Nadeau.
Stephenson Creamery,	Henry E. Jahnke,	Stephenson.
Carney Cheese Factory,	J. H. Hannon,	Carney.
Daggett Creamery,	T. H. Pastorski,	Daggett.
Palestine Cheese Factory,	Robt. W. Sturdy,	Stephenson, R. 1.
Wilson Cheese Factory,	Adolph Trousil, Mgr.	Wilson.

## MIDLAND COUNTY.

Farmers Dairy Assn. Creamery,	F. L. Ferguson, Mgr.,	Coleman.
Coleman Creamery Co.,	C. H. Keyworth, Mgr.,	Coleman.
North Bradley Cream Station,	Swift & Co.,	Alma.
Coleman Cream Station,	Michigan Creamery Co.,	Saginaw.
Smiths Crossing Cream Station,	Michigan Creamery Co.,	Saginaw.
Midland Cream Station,	Michigan Creamery Co.,	Saginaw.
Midland Creamery,	Vasold Bros. & Co.,	Bay City.
Posyville Cream Station,	Vasold Bros. & Co.,	Bay City.
Laporte Cream Station,	Vasold Bros. & Co.,	Bay City.
Sanford Cream Station,	Vasold Bros. & Co.,	Bay City.
North Bradley Cream Station,	Coleman Creamery Co.,	Coleman.
Averill Cream Station,	Michigan Creamery Co.,	Saginaw.

## MISSAUKEE COUNTY.

Lucas Farmers Creamery Co.,	J. C. Taylor,	Lucas.
Butterfield Cream Station,	Swift & Co.,	Alma.
Lake City Cream Station,	Swift & Co.,	Alma.
Merritt Cream Station,	Swift & Co.,	Alma.
Missaukee Cream Station,	Swift & Co.,	Alma.
Moddersville Cream Station,	Swift & Co.,	Alma.
McBain Cream Station,	Swift & Co.,	Alma.
Star City Cream Station,	Swift & Co.,	Alma.
Stittsville Cream Station,	Swift & Co.,	Alma.
McBain Cream Station,	Michigan Creamery Co.,	Saginaw.
Vogel Center Cream Station,	Michigan Creamery Co.,	Saginaw.
Prosper Cream Station,	Cadillac Ice Cream Co.,	Cadillac.
Falmouth Cream Station,	Cadillac Ice Cream Co.,	Cadillac.

## MONROE COUNTY.

Monroe Creamery,	Monroe Butter & Cheese Factory,	Monroe.
Frenchtown Twp. Skimming Sta.,	Monroe Butter & Cheese Factory,	Monroe.
La Salle Skimming Station,	Monroe Butter & Cheese Factory,	Monroe.
Hazelwood Creamery,	R. G. Peters,	Petersburg.
Excelsior Creamery Co., (Ida)	W. G. Hoffman,	Ida.
Strasburg Skimming Station,	Excelsior Creamery Co.,	Ida.
D. A. Jenkins Cheese Factory,	D. A. Jenkins,	Monroe.
Newport Creamery,	C. W. Beckham, 409 13th St.,	Toledo, Ohio.
Temperance Milk Depot,	Clover Leaf Dairy Co.,	Toledo, Ohio.
Azalia Cond. Milk Fac. & Milk Depot,	Toledo Dairy Co.,	Toledo, Ohio.
Strasburg Cheese Co.,	Anton Gelger,	Ida.
So. Rockwood Butter & Cheese Co.,	J. W. Harris, Mgr.,	South Rockwood.
Dundee Condensed Milk Plant,	Ohio Dairy Co.,	Toledo, Ohio.
Jersey Farm Creamery,	W. N. Gilman & Son,	Petersburg.
Lulu Receiving Station,	Ohio Dairy Co.,	Toledo, Ohio.
Dundee Condensing Plant,	Ohio Dairy Co.,	Toledo, Ohio.
Whitford Twp. Cheese Factory,	A. L. Gilhouse,	Riga.
Maybee Skimming Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Dundee Skimming Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Carleton Skimming Station,	J. W. Simcock,	New Boston.
Petersburg Cream Station,	Spencer & Howes,	Detroit.
Carleton Cream Station,	Spencer & Howes,	Detroit.
Scotfield Cream Station,	Spencer & Howes,	Detroit.
Rea Cream Station,	Medina County Creamery Co.,	Detroit.
Maybee Cream Station,	Medina County Creamery Co.,	Detroit.

## MONTCALM COUNTY.

Montcalm Creamery Co.,	Lynch & Armstrong,	Greenville.
S. Petersen Creamery,	S. Petersen,	Greenville.
F. H. Muler Cheese Factory,	F. H. Muler,	Carson City.
McBride Creamery Co.,	C. W. Harden,	McBride.
Trufant Milk Station,	McBride Creamery Co.,	McBride.
Entrican Milk Station,	McBride Creamery Co.,	McBride.
Butternut Cheese Factory,	J. M. Fitzpatrick,	Butternut.
Crystal Cheese Factory,	J. M. Fitzpatrick,	Butternut.
Vestaburg Cream Station,	McBride Creamery Co.,	McBride.
Sidney Cream Station,	McBride Creamery Co.,	McBride.
Six Lakes Cream Station,	McBride Creamery Co.,	McBride.
Vickeryville Cheese Factory,	M. C. Johnson,	Vickeryville.
Six Lakes Cream Depot,	G. E. Cornell,	Six Lakes.

## MONTCALM COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Butternut Cream Station,	Swift & Co.,	Alma.
Coral Cream Station,	Swift & Co.,	Alma.
Edmore Cream Station,	Swift & Co.,	Alma.
Entrican Cream Station,	Swift & Co.,	Alma.
Fenwick Cream Station,	Swift & Co.,	Alma.
Fishville Cream Station,	Swift & Co.,	Alma.
Gowen Cream Station,	Swift & Co.,	Alma.
Howard City Cream Station,	Swift & Co.,	Alma.
Lakeview Cream Station,	Swift & Co.,	Alma.
Persion Cream Station,	Swift & Co.,	Alma.
Sheridan Cream Station,	Swift & Co.,	Alma.
Sidney Cream Station,	Swift & Co.,	Alma.
Six Lakes Cream Station,	Swift & Co.,	Alma.
Stanton Cream Station,	Swift & Co.,	Alma.
Trufant Cream Station,	Swift & Co.,	Alma.
Vestaburg Cream Station,	Swift & Co.,	Alma.
Wyman Cream Station,	Swift & Co.,	Alma.
Carson City Cream Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Carson City Cream Station,	Durand Creamery Co.,	Durand.
Howard City Cream Station,	Rudell Creamery Co.,	Grand Rapids.
Lakeview Creamery,	H. A. Black,	Lakeview.
Amble Creamery,	Amble Cooperative Cry. Co.,	Amble.
Edmore Creamery,	L. Barber & Co.,	Edmore.
Coral Cream Station,	L. Barber & Co.,	Edmore.
Howard City Cream Station,	L. Barber & Co.,	Edmore.
McBrides Cream Station,	L. Barber & Co.,	Edmore.
Six Lakes Cream Station,	L. Barber & Co.,	Edmore.
Stanton Cream Station,	L. Barber & Co.,	Edmore.
Trufant Cream Station,	L. Barber & Co.,	Edmore.
Coral Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Trufant Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Sheridan Creamery Co.,	Jack Dolan,	Sheridan.
Vestaburg Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Trufant Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Six Lakes Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Coral Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Fenwick Cream Station,	Spencer & Howes,	Detroit.

## MONTMORENCY COUNTY.

Atlanta Cream Station,	Vasold Bros. & Co.,	Bay City.
Big Rock Cream Station,	Vasold Bros. & Co.,	Bay City.
Royston Cheese Factory,	A. K. Brandt,	Royston.
Hillman Creamery,	Hillman Creamery Co.,	Hillman.

## MUSKEGON COUNTY.

Ravenna Creamery,	Ravenna Cooperative Cry. Co.,	Ravenna.
Dalson & Nielson Milk Depot,	Dalson & Nielson,	Muskegon.
Holton Creamery,	Holton Creamery Co.,	Holton.
Dalton Creamery,	E. J. Peterson,	Muskegon.
Peerless Creamery,	Campbell & Caulfield,	Muskegon.
Moorland Cream Station,	Dalton Creamery Co.,	Muskegon.
Sullivan Cream Station,	Dalton Creamery Co.,	Muskegon.
Montague Cream Station,	Dalton Creamery Co.,	Muskegon.
Brunswick Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## NEWAYGO COUNTY.

Grant Creamery,	Grant Creamery Co.,	Grant.
Reeman Creamery,	Reeman Cooperative Cry. Co.,	Reeman.
Fremont Creamery,	Fremont Creamery Co.,	Fremont.
Rouge River Creamery Co.,	J. Vander Molen, Mgr.,	Grant. R. 3.
Blue Line Creamery,	B. C. Martin,	White Cloud.
Woodville Cream Station,	Swift & Co.,	Alma.
Beaver Valley Creamery,	Beaver Valley Cry. Co., Inc.,	Bitely, R. 1.
Bishop Creamery Co.,	John Dobben,	Fremont.
Woodville Cream Station,	L. Barber & Co.,	Edmore.
Sitka Cream Station,	Dalton Creamery Co.,	Muskegon.
Wooster Cream Station,	Dalton Creamery Co.,	Muskegon.
Hawkins Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Ramona Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## OAKLAND COUNTY.

Royal Oak Milk Depot,	Peter Backer,	Royal Oak.
N. Farmington Cheese Factory,	M. B. Armstrong,	Pontiac.
South Lyons Milk Depot,	Detroit Creamery Co.,	Detroit.
Pontiac Cooperative Cry. Co.,	F. C. King, Mgr.,	Pontiac.
Geo. H. King Milk Depot,	Geo. H. King,	Royal Oak.
Farmington Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Powers Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Franklin Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.



## OAKLAND COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Novi Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
C. L. Pearson Milk Depot,	C. L. Pearson,	Millford.
Stoll Bros. Milk Depot,	Stoll Bros.,	Redford, R. 1.
Holly Cream Station,	Swift & Co.,	Alma.
New Hudson Cheese Factory,	Towards Wayne Co. Cry. Co.,	Detroit.
Clarenceville Milk Depot,	Towards Wayne Co. Cry. Co.,	Detroit.
South Lyons Cream Station,	Spencer & Howes,	Detroit.
Wixom Cream Station,	Spencer & Howes,	Detroit.
Mt. Vernon Cream Sta. (Rochester),	Spencer & Howes,	Detroit.
Rose Center Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.
Walled Lake Cheese Factory,	C. G. Freeman,	Walled Lake.
Clyde Cream Station,	Crouse & Parshall Dairy Pro. Co.,	Fenton.
Holly Cream Station,	Crouse & Parshall Dairy Pro. Co.,	Fenton.
Highland Milk Depot,	Crouse & Parshall Dairy Pro. Co.,	Fenton.
Davisburg Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.

## OCEANA COUNTY.

Walkerville Creamery,	Walkerville Creamery Co.,	Walkerville.
New Era Creamery Co.,	George C. Myers, Mgr.,	Shelby, R. 4.
Shelby Dairy Co. Creamery,	Shelby Dairy Co.,	Shelby.
E. S. Powers Butter Co.,	E. S. Powers,	Hart.
Pentwater Cream Station,	Dalton Creamery Co.,	Muskegon.
Rothbury Cream Station,	Dalton Creamery Co.,	Muskegon.
Claybank Cream Station,	Dalton Creamery Co.,	Muskegon.
Rothbury Creamery,	Rothbury Creamery Co.,	Rothbury.
Hesperia Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## OGEMAW COUNTY.

West Branch Creamery,	Herbert Hennen,	West Branch.
Prescott Cream Station,	E. J. Weinberg,	Prescott.
Prescott Cream Station,	Weishuhn & Hanlon,	Prescott.
Rose City Creamery,	W. A. Cook,	Rose City.
Ogemaw Cream Cheese Co.,	E. C. Sortor, Mgr.,	Lupton.
West Branch Cream Station,	Michigan Creamery Co.,	Saginaw.
Prescott Cream Station,	Vasold Bros. & Co.,	Bay City.
Prescott Cream Station,	Michigan Creamery Co.,	Saginaw.
Lupton Cream Station,	Michigan Creamery Co.,	Saginaw.
West Branch Creamery,	West Branch Cry. Co.,	West Branch.

## ONTONAGON COUNTY.

Ontonagon Creamery,	Ontonagon Creamery Co.,	Ontonagon.
Paynesville Milk & Cream Depot,	Benstrom & Nystie,	Paynesville.
Ontonagon Valley Cry. Co.,	Carl J. Hatfield, Mgr.,	Ewen.

## OSCEOLA COUNTY.

Evart Creamery,	G. A. & J. M. Glerum,	Evart.
Reed City Creamery,	Reed City Butter Co.,	Reed City.
Leroy Cream Station,	Swift & Co.,	Alma.
Ashton Cream Station,	Swift & Co.,	Alma.
Orono Cream Station,	Swift & Co.,	Alma.
Park Lake Cream Station,	Swift & Co.,	Alma.
Reed City Cream Station,	Swift & Co.,	Alma.
Tustin Cream Station,	Swift & Co.,	Alma.
Evart Cream Station,	Michigan Creamery Co.,	Saginaw.
Hersey Cream Station,	Michigan Creamery Co.,	Saginaw.
Marion Cream Station,	Michigan Creamery Co.,	Saginaw.
Reed City Milk Station,	Rudell Creamery Co.,	Grand Rapids.
Reed City Cream Station,	Michigan Creamery Co.,	Saginaw.
Tustin Cream Station,	L. Barber & Co.,	Edmore.
LeRoy Creamery,	D. B. Ketchum,	LeRoy.
Dewings Cream Station,	LeRoy Creamery Co.,	LeRoy.
Tustin Cream Station,	Boyland Creamery Co.,	Grand Rapids.
LeRoy Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Ashton Cream Station,	Boyland Creamery Co.,	Grand Rapids.
Dighton Cream Station,	Swift & Co.,	Alma.
Tustin Cream Station,	Sanitary Milk Co.,	Grand Rapids.
Evart Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## OSCODA COUNTY.

Kneeland Creamery (Rose City),	W. A. Cook,	Kneeland.
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## OTSEGO COUNTY.

Elmira Cream Station,	Swift & Co.,	Alma.
Hallock Cream Station,	Vasold Bros. & Co.,	Bay City.
Vanderbilt Cream Station,	Vasold Bros. & Co.,	Bay City.
Gaylord Cream Station,	Vasold Bros. & Co.,	Bay City.
Hetherton Cream Station,	Vasold Bros. & Co.,	Bay City.
Elmira Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## OTTAWA COUNTY.

Name.	Owner or Manager.	Postoffice.
Zealand Cheese Factory,	Phoenix Cheese Co.,	Zealand.
Harland Milk Station,	Phoenix Cheese Co.,	Zealand.
Blendon Milk Station,	Phoenix Cheese Co.,	Zealand.
Holland Crystal Creamery,	C. J. Lokker & Co.,	Holland.
Noordeloos Skimming Station,	C. J. Lokker & Co.,	Holland.
Interurban Cooperative Cry. Co.,	Jno. Van Rhee, Mgr.,	Hudsonville, R. 4.
Drenthe Cooperative Creamery,	Drenthe Cooperative Cry. Co.,	Zealand, R. 3.
Jamestown Skimming Station,	Jamestown Coop. Cry. Co.,	Hudsonville, R. F. D.
Forest Grove Creamery,	Jamestown Coop. Cry. Co.,	Hudsonville, R. F. D.
Vriesland Creamery Co.,	Henry Rock, Mgr.,	Vriesland.
Hudsonville Creamery Co.,	Jno. Vanderheide, Mgr.,	Hudsonville.
Nunica Creamery Co.,	Hinken & Zylstra,	Nunica.
Banner Creamery,	Banner Creamery Co.,	Jenison, R. 1.
Farmers Cooperative Creamery,	Farmers Coop. Cry. Co.,	Conklin.
Crisp Creamery Co.,	A. J. Nienhuis, Mgr.,	Holland, R. 2.
Allendale Creamery,	Allendale Coop. Cry. Co.,	Allendale.
Beaverdam Cooperative Cry. Co.,	David Bekins, Mgr.,	Zealand.
West Skimming Station,	Bauer Creamery Co.,	Jenison, R. 1.
Lugers Crossing Creamery,	E. R. Brakesma,	Holland, R. 12.
West Olive Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## PRESQUE ISLE COUNTY.

Posen Cream Station,	Vasold Bros. & Co.,	Bay City.
Millersburg Cream Station,	Vasold Bros. & Co.,	Bay City.

## ROSCOMMON COUNTY.

Roscommon Cream Station,	Vasold Bros. & Co.,	Bay City.
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## SAGINAW COUNTY.

C. H. Parker Milk Depot,	C. H. Parker, 228 W. Warren,	Saginaw.
Frankenmuth Cheese Factory,	L. Hubinger,	Frankenmuth.
Maple Grove Elgin Butter Fac.,	A. Bueche, Mgr.,	New Lothrop, R. 4.
Buena Vista Cheese Factory,	Buena Vista Cheese Co.,	Saginaw, R. 4.
Hemlock Creamery,	Hemlock Creamery Co.,	Hemlock.
Blackmar Cheese Co.,	W. A. Judd, Mgr.,	Fosters, R. 1.
Frankentrost Creamery,	Mathias Jansen,	Saginaw, E. S., R. 4.
Union Cheese Mfg. Co.,	C. Schwartz Kopf,	Frankenmuth.
Star Cheese Factory,	G. M. Rupprecht, Mgr.,	Frankenmuth.
Saginaw Creamery,	Saginaw Creamery Co.,	Saginaw.
Birch Run Cheese Factory,	Birch Run Cheese Co.,	Birch Run.
Wilson Cheese Factory,	Wilson Cheese Co.,	Birch Run.
Eastwood Cream Station,	Swift & Co.,	Alma.
Fordney Cream Station,	Swift & Co.,	Alma.
Merrill Cream Station,	Swift & Co.,	Alma.
Fennore Cream Station,	Swift & Co.,	Alma.
Lawndale Creamery,	Saginaw Creamery Co.,	Saginaw.
Cheaning Cream Station,	Michigan Creamery Co.,	Saginaw.
Freeland Creamery,	Vasold Bros. & Co.,	Bay City.
J. C. Malone Creamery, (Fosters)	J. C. Malone,	Burt.
Marion Springs Cream Station,	Durand Creamery Co.,	Durand.
Standard Cheese Co.,	Kent & Thompson,	Birch Run.
Burt Cream Station,	Standard Butter Co.,	Flushing.
St. Charles Cream Station,	Standard Butter Co.,	Flushing.
Brady Centre Cream Station,	Standard Butter Co.,	Flushing.
Brant Cream Station,	Standard Butter Co.,	Flushing.
Cheaning Cream Station,	Standard Butter Co.,	Flushing.
Oakley Cream Station,	Standard Butter Co.,	Flushing.
Fergus Cream Station,	Standard Butter Co.,	Flushing.
St. Charles Cream Station,	Standard Butter Co.,	Flushing.
Saginaw Cream Station,	Michigan Creamery Co.,	Saginaw.
Freeland Cream Station,	Michigan Creamery Co.,	Saginaw.
St. Charles Cream Station,	Breckenridge Creamery Co.,	Breckenridge.
Gera Creamery,	Rogner & Son,	Gera.
Luce Cream Station,	Standard Butter Co.,	Flushing.

## SANILAC COUNTY.

Roseburg Butter Co.,	A. E. Mitchell, Mgr.,	Yale, R. 5.
Minden City Creamery,	L. H. Riedel,	Minden City.
Red Star Creamery Association,	Bert R. Walker, Mgr.,	Marlette.
Greenleaf Creamery Co.,	A. McCallum, Mgr.,	Cass City, R. 1.
Croswell Creamery Co.,	Wm. Smith, Mgr.,	Croswell.
Union Creamery Co.,	Frank S. Burgess, Mgr.,	Deckerville.
Equity Creamery Co.,	Gleason & Lansing.	Brown City.
Elmer Creamery Co.,	N. Kerr & Son,	Sandusky.
Downington Cheese Co.,	H. Muir, Mgr.,	Downington.
Valley Center Cream Station,	Equity Creamery Co.,	Brown City.
Marlette Creamery,	Equity Creamery Co.,	Brown City.
Marlette Cream Station,	Swift & Co.,	Alma.

## SANILAC COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Brown City Cream Station,	Equity Creamery Co.,	Brown City.
Brown City Cream Station,	Michigan Creamery Co.,	Saginaw.
Marlette Cream Station,	Michigan Creamery Co.,	Saginaw.
Applegate Cream Station,	Port Huron Creamery Co.,	Port Huron.
Tyre Cream Station,	Port Huron Creamery Co.,	Port Huron.
Croswell Cream Station,	Port Huron Creamery Co.,	Port Huron.
Deckerville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Port Sanilac Cream Station,	Port Huron Creamery Co.,	Port Huron.
Tyre Cream Station,	Port Huron Creamery Co.,	Port Huron.
Carsonville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Palms Cream Station,	Port Huron Creamery Co.,	Port Huron.
Minden City Cream Station,	Port Huron Creamery Co.,	Port Huron.
Charleston Cream Station,	Port Huron Creamery Co.,	Port Huron.
Marlette Cream Station,	Port Huron Creamery Co.,	Port Huron.
Valley Center Cream Station,	Port Huron Creamery Co.,	Port Huron.
Brown City Cream Station,	Port Huron Creamery Co.,	Port Huron.
Melvin Cream Station,	Port Huron Creamery Co.,	Port Huron.
Bandusky Creamery,	W. T. Leonard & Co.,	Norwood, N. Y.
Applegate Creamery,	W. T. Leonard & Co.,	Norwood, N. Y.
Shabbona Creamery Co.,	R. M. Riley,	Shabbona.
Minden City Cream Station,	Medina County Creamery Co.,	Detroit.

## SHIAWASSEE COUNTY.

Perry Cheese Factory and Cry.	Halpin Creameries,	Detroit.
Henderson Creamery,	J. W. Epton,	Henderson.
Owosso Con. Plant & Milk Depot,	Detroit Creamery Co.,	Detroit.
O. A. Launstein Milk Depot,	O. A. Launstein, 903 Adams St.,	Owosso.
Durand Creamery,	C. E. Van Slyke,	Durand.
Bancroft Cheese Factory,	MacLaren Imperial Cheese Co.,	Detroit.
Morrice Creamery,	Bishop Creamery Co.,	Buchanan.
Bennington Creamery,	Wm. Coe, Prop.,	Bennington.
F. M. Lotridge Milk Depot,	F. M. Lotridge,	Owosso.
Carland Cheese Co.,	D. D. Curtis, Mgr.,	Carland.
Byron Cheese Factory,	F. C. Mogel, Mgr.,	Byron.
Byron Cream Station,	Swift & Co.,	Alma.
Carland Cream Station,	Swift & Co.,	Alma.
Laingsburg Cream Station,	Swift & Co.,	Alma.
Vernon Cream Station,	Swift & Co.,	Alma.
Maple Grove Elgin Butter Factory,	Adolph Bueche,	New Lothrop.
Laingsburg Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.
Owosso Cream Station,	Towards Wayne Co. Cry. Co.,	Detroit.
Lennon Creamery,	Lennon Creamery Co.,	Lennon.
Easton Cream Station,	Durand Creamery Co.,	Durand.
Vernon Cream Station,	Durand Creamery Co.,	Durand.
Bancroft Cream Station,	Durand Creamery Co.,	Durand.
Shaftsbury Cream Station,	Durand Creamery Co.,	Durand.
Wm. Owen Milk Depot,	Wm. Owen,	Owosso.
B. F. Moulton & Co., Milk Depot,	B. F. Moulton & Co.,	Owosso.
Vernon Cream Station,	Standard Butter Co.,	Flushing.
New Lothrop Cream Station,	Standard Butter Co.,	Flushing.
Owosso Cream Station,	Swift & Co.,	Alma.

## ST. CLAIR COUNTY.

Germania Cheese Factory,	F. J. Haug, Mgr.,	Marine City.
Pine Grove Cheese Co.,	Andrew Hahn, Mgr.,	Marine City, R. 3.
Review Cheese Factory,	John Brenner, Mgr.,	Marine City.
Maple Grove Cheese Factory,	Simon Babel & Co.,	Marine City.
Locust Lawn Creamery,	L. D. Cole,	Blaine.
Avoca Butter Co. Creamery,	Avoca Butter Co.,	Avoca.
Casco Creamery,	Chas. Zentgrebe,	Lenox.
Yale Cream Station,	Equity Creamery Co.,	Brown City.
Valley Center Cream Station,	Equity Creamery Co.,	Brown City.
Yale Cream Station,	Michigan Creamery Co.,	Saginaw.
Port Huron Creamery,	Port Huron Creamery Co.,	Port Huron.
Jeddo Cream Station,	Port Huron Creamery Co.,	Port Huron.
Brockway Cream Station,	Port Huron Creamery Co.,	Port Huron.
Yale Cream Station,	Port Huron Creamery Co.,	Port Huron.
Lambs Cream Station,	Port Huron Creamery Co.,	Port Huron.
Doyle Cream Station,	Port Huron Creamery Co.,	Port Huron.
Wales Cream Station,	Port Huron Creamery Co.,	Port Huron.
Berville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Burns Cream Station,	Port Huron Creamery Co.,	Port Huron.
Columbus Cream Station,	Port Huron Creamery Co.,	Port Huron.
Smiths Creek Cream Station,	Port Huron Creamery Co.,	Port Huron.
Capac Cream Station,	Port Huron Creamery Co.,	Port Huron.
Kimball Cream Station,	Port Huron Creamery Co.,	Port Huron.
Crockerville Cream Station,	Port Huron Creamery Co.,	Port Huron.
Otter & Ruff Creamery,	Otter & Ruff,	St. Clair.
Smiths Creek Cream Station,	Spencer & Howes,	Detroit.
Hillsdale Skimming Station,	St. Clair Creamery Co.,	St. Clair.
Capac Cream Station,	Medina County Creamery Co.,	Detroit.
Capac Cream Station,	Spencer & Howes,	Detroit.

## ST. JOSEPH COUNTY.

Name.	Owner or Manager.	Postoffice.
Constantine Creamery,	Constantine Creamery Co.,	Constantine.
Colon Creamery,	Colon Creamery Co.,	Colon.
Sturgis Milk Depot,	Sturgis Dairy Co.,	Sturgis.
Colon Cream Station,	Jackson Farm Produce Co.,	Jackson.
Centerville Cream Station,	Jackson Farm Produce Co.,	Jackson.
White Pigeon Creamery,	White Pigeon Dairy & Pro. Co.,	White Pigeon.
Burr Oak Cream Station,	Jackson Farm Produce Co.,	Jackson.
Sturgis Cream Station,	Jackson Farm Produce Co.,	Jackson.
Burr Oak Cream Station,	Towars Wayne Co. Creamery,	Detroit.
Howardsville Cream Station,	Sanitary Milk Co.,	Grand Rapids.

## TUSCOLA COUNTY.

Vassar Condensed Milk Factory,	Vassar Condensed Milk Co.,	Detroit.
Mayville Creamery,	Mayville Creamery Co.,	Mayville.
Tuscola Cheese Mfg. Co.,	G. W. Diamond, Mgr.,	Tuscola.
Millington Cry. and Cheese Fac.,	Halpin Creameries,	31-33 Griswold St., Detroit.
Richville Cry. and Cheese Fac.,	Halpin Creameries,	31-33 Griswold St., Detroit.
Vassar Cry. and Cheese Factory,	Halpin Creameries,	31-33 Griswold St., Detroit.
Kingston Creamery,	Holmes & Maynard,	Kingston.
Stone Road Cheese Factory,	Stone Road Cheese Co.,	Millington, R. 5.
Arbela Cheese Co.,	J. A. Pickett,	Millington.
Fairgrove Cream Station,	Michigan Creamery Co.,	Saginaw.
Unionville Creamery,	Unionville Creamery Co., Ltd.,	Unionville.
Thumb Cooperative Cry. Co.,	W. A. Mudge, Mgr.,	Caro.
Cass City Creamery,	Thumb Cooperative Cry. Co.,	Caro.
Gagetown Cheese Factory,	Fred M. Warner Cheese Co.,	Farmington.
Fairgrove Creamery,	F. E. & G. M. Findlay,	Fairgrove.
Silverwood Cheese Factory,	A. L. Rice,	Silverwood.
Junia Cream Station,	Port Huron Creamery Co.,	Port Huron.
Cass City Cream Station,	Port Huron Creamery Co.,	Port Huron.
Quanicassess Cream Station,	Vasold Bros. & Co.,	Bay City.
Millington Cream Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Deford Cream Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Mayville Cream Station,	Michigan Creamery Co.,	Saginaw.
Kingston Receiving Station,	Pontiac Coop. Creamery Co.,	Pontiac.

## VAN BUREN COUNTY.

Gobleville Creamery,	Gobleville Creamery Co.,	Gobleville.
Lawrence Cooperative Cry. Co.,	D. Bennett, Mgr.,	Lawrence.
Bloomington Creamery,	Charles Linton,	Bloomington.
Berlamont Skimming Station,	Charles Linton,	Bloomington.
Base Line Cheese Factory,	Lynn Reid,	Bloomington.
Decatur Creamery,	Decatur Creamery Co.,	Decatur.
Paw Paw Creamery,	A. B. Cossairt, Mgr.,	Paw Paw.
Hartford Creamery,	Geo. Schoppach,	Hartford.
Glendale Cooperative Cry. Co.,	J. M. Scamehorn, Mgr.,	Bloomington.
Bangor Creamery,	Ward & Trim,	Bangor.

## WASHTENAW COUNTY.

Wurster Bros. Milk Depot & Cry.,	Wurster Bros.,	Ann Arbor.
Jury & Pittenger Creamery,	Jury & Pittenger,	Ann Arbor.
Willis Creamery,	Fletcher & Alban,	Ypsilanti.
Saline Creamery,	Saline Creamery Co.,	Saline.
J. S. Cummings Cream Station,	J. S. Cummings,	Chelsea.
Worden Coop. Cry. Association,	H. C. Custer (Plymouth),	Saline.
Salem Milk Depot,	Detroit Creamery Co.,	Detroit.
Manchester Creamery,	R. G. Sorter,	Manchester.
Stony Creek Skimming Station,	Ypsilanti Dairy Association,	Ypsilanti.
Ypsilanti Creamery,	Ypsilanti Dairy Association,	Ypsilanti.
Cherry Hill Skimming Station,	Ypsilanti Dairy Association,	Ypsilanti.
Riverside Creamery,	W. F. Allen,	Milan.
Geo. Currie Milk Depot,	Geo. Currie, 1246 Packard St.,	Ann Arbor.
Chelsea Cream Depot,	Towars Wayne Co. Cry. Co.,	Detroit.
Whittaker Skimming Station,	Towars Wayne Co. Cry. Co.,	Detroit.
Milan Cream Depot,	Towars Wayne Co. Cry. Co.,	Detroit.
Bridgewater Cream Station,	Spencer & Howes,	Detroit.
Saline Cream Station,	Spencer & Howes,	Detroit.
Manchester Cream Station,	Spencer & Howes,	Detroit.
Steinbach (Chelsea) Cream Station,	Spencer & Howes,	Detroit.
Milan Milk Depot,	Ohio Dairy Co.,	Toledo, O.
Manchester Cream Station,	Jackson Farm Produce Co.,	Jackson.
Dexter Cream Station,	Towars Wayne Co. Creamery,	Detroit.
Ann Arbor Creamery,	Eaton & Allen,	Ann Arbor.
Emery Cream Station,	Eaton & Allen,	Ann Arbor.

## WAYNE COUNTY

Goldbrook Creamery,	John Schlaff, 277 Tillman Ave.,	Detroit.
Bell Branch Milk Station,	John Schlaff, 277 Tillman Ave.,	Detroit.
Mill Road Milk Station,	John Schlaff, 277 Tillman Ave.,	Detroit.

## WAYNE COUNTY—Continued.

Name.	Owner or Manager.	Postoffice.
Warren Ave. Milk Station,	John Schlaff, 277 Tillman Ave.,	Detroit.
Red Gables Creamery,	John Trembley, 485 Cass Ave.,	Detroit.
Chas. Swegles Milk Depot,	Chas. Swegles,	Inkster, R. 1.
Tony Schlaff Milk Depot,	Tony Schlaff,	Dearborn.
Wayne Creamery,	J. B. Murphy,	Wayne.
E. Dohany Milk Dep. (Clarenceville),	E. Dohany,	Farmington.
Belleville Creamery,	Van Buren Creamery Co.,	Belleville.
E. M. Starkweather Milk Depot,	E. M. Starkweather,	Northville.
Johnson Creamery,	Lyman Johnson,	Wyandotte.
Henry Schwartz Milk Depot,	Henry Schwartz,	Wyandotte.
Anthony Lazarowicz Milk Depot,	Anthony Lazarowicz,	Detroit.
Frank R. Smith Milk Depot,	Frank R. Smith, 83 Melrose Av.,	Detroit.
Stark Milk Depot,	Detroit Creamery Co.,	Detroit.
Swegles Milk Depot,	Detroit Creamery Co.,	Detroit.
Canton Milk Depot,	Detroit Creamery Co.,	Detroit.
Preston Milk Depot,	Detroit Creamery Co.,	Detroit.
Plymouth Milk Depot,	Detroit Creamery Co.,	Detroit.
Perrinsville Milk Depot,	Detroit Creamery Co.,	Detroit.
Inkster Milk Depot,	Detroit Creamery Co.,	Detroit.
Holland Milk Depot,	Detroit Creamery Co.,	Detroit.
Hand Milk Depot,	Detroit Creamery Co.,	Detroit.
Flat Rock Milk Depot,	Detroit Creamery Co.,	Detroit.
Elm Milk Depot,	Detroit Creamery Co.,	Detroit.
Highland Park Creamery Co.,	Geo. E. Brown, Mgr.,	Highland Park.
Troy Milk Co.,	R. C. Scholtz, Mgr.,	79 Baltimore Ave., Detroit.
Medina Creamery,	Medina Creamery Co.,	Broadway Mkt., Detroit.
M. Goldberg Creamery,	M. Goldberg, 501 1/2 Hastings St.,	Detroit.
Kaufman Creamery,	M. Kaufman, 841 Watson St.,	Detroit.
Louis C. Fritz Milk Depot,	Louis C. Fritz, 182 Arndt St.,	Detroit.
S. H. Wilber Milk Depot,	S. H. Wilber,	Wayne, R. 1.
Albrich Bros. Milk Depot,	Albrich Bros., 583 Tillman Ave.,	Detroit.
J. H. Wilson & Son Creamery,	J. H. Wilson & Son, 97 Savoy St.,	Detroit.
Spencer & Howes Creamery,	Spencer & Howes, 24 Market St.,	Detroit.
W. J. Wildern Milk Depot,	W. J. Wildern, 589 Tillman Ave.,	Detroit.
P. A. Nash Creamery,	P. A. Nash,	Plymouth.
Carl Kransmann Creamery,	Carl Kransmann,	918 St. Aubin Ave., Detroit.
Weiss Creamery,	J. H. Weiss, 215 Baldwin Ave.,	Detroit.
F. C. Frank Milk Depot,	F. C. Frank, 279 Phila. Ave.,	Detroit.
C. L. Bossardet & Sons Milk Depot,	C. L. Bossardet & Sons,	Detroit.
Juo. E. Clinton Creamery,	147 Pierce St.,	Detroit.
Wm. Dickinson, Jr. Milk Depot,	Wm. Dickinson,	1467 Jos Campau, Detroit.
Glitt Edge Milk Depot,	Frank E. Bradley,	Farmington.
West Sumpter Creamery Assn.,	L. Tabor, Mgr.,	Belleville.
Crooks Crossing Milk Depot,	Towards Wayne Co. Cry.,	Detroit.
Gibraltar Milk Depot,	Towards Wayne Co. Creamery,	Detroit.
Redford Milk Depot,	Towards Wayne Co. Creamery,	Detroit.
Beech Milk Depot,	Towards Wayne Co. Creamery,	Detroit.
New Boston Creamery,	J. W. Simcock,	New Boston.
Waltz Skimming Station,	J. W. Simcock,	New Boston.
Wm. L. Watson Dairy,	Wm. L. Watson, 223 Moran St.,	Detroit.
Belle Isle Creamery,	Laethem Bros.,	Detroit.
Wolverine Creamery,	E. DeMuth, 465 1/2 Woodward Av.,	Detroit.
West Sumpter Cream Depot,	Walter E. Beebe,	West Sumpter.
Redford Milk Depot,	Arctic Ice Cream Co.,	Detroit.

## WEXFORD COUNTY.

Cadillac Ice Cream Co. Milk Depot	Cadillac Ice Cream Co.,	Cadillac.
Boon Cream Station,	Swift & Co.,	Alma.
Cadillac Cream Station,	Swift & Co.,	Alma.
Harriette Cream Station,	Swift & Co.,	Alma.
Manitou Cream Station,	Swift & Co.,	Alma.
Menawatake Cream Station,	Swift & Co.,	Alma.
Mesick Cream Station,	Swift & Co.,	Alma.
Wexford Cream Station,	Swift & Co.,	Alma.
Manitou Creamery,	Rudell Creamery Co.,	Grand Rapids.
Mesick Cream Station,	Michigan Creamery Co.,	Saginaw.
Buckley Cream Station,	Swift & Co.,	Alma.
Buckley Cream Station,	Sanitary Milk Co.,	Grand Rapids.

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**LAWS AND DECISIONS.**

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## LAWS OF MICHIGAN

### RELATIVE TO

### INSPECTION AND ADULTERATION OF FOODS AND DRUGS.

#### POWERS AND DUTIES OF THE COMMISSIONER.

AN ACT to provide for the appointment of a Dairy and Food Commissioner, and to define his powers and duties and fix his compensation.

(Act No. 211, Public Acts, 1893.)

*The People of the State of Michigan enact:*

1. (C. L., 4973) SECTION 1. That within thirty days after this act shall take effect, the Governor by and with the consent of the Senate, shall appoint a suitable person to be Dairy and Food Commissioner, which office is hereby created, and which commissioner so appointed shall hold his office until the first day of January, one thousand eight hundred and ninety-five, and until his successor is appointed and qualified. At the next regular session of the legislature and every two years thereafter, the Governor, by and with the advice and consent of the Senate, shall appoint a Dairy and Food Commissioner, who shall hold his office for the term of two years from the first day of January in the year of his appointment and until his successor is appointed and qualified.

2. (C. L., 4974) SEC. 2. The governor shall have power to remove such commissioner at any time in his discretion; but the reasons for such removal shall be laid before the Senate at the next regular or special session of the legislature thereafter, and in case of a vacancy in the office of commissioner from any cause, the Governor may appoint another person to fill the same.

3. (C. L., 4975) SEC. 3. Before entering upon the duties of his office, the person so appointed shall make, subscribe, and file in the office of the Secretary of State, an oath of office in the form prescribed by section one of article eighteen of the constitution of this State, and shall enter into bonds with the people of the State of Michigan in the sum of ten thousand dollars, with sureties to be approved by the Governor, conditioned for the faithful performance of his duties.

4. (C. L., 4976) SEC. 4. Said commissioner shall receive an annual salary of two thousand dollars. The said commissioner is hereby authorized and empowered, by and with the advice and consent of the governor, to appoint a deputy commissioner. The salary of the deputy commissioner shall be fifteen hundred dollars per annum. The said commissioner may also appoint eight regular inspectors, who shall receive an annual salary not to exceed one thousand dollars per year, and



such other special inspectors as the proper performance of the duties of the office may require, which special inspectors shall be paid not to exceed three dollars per day for the time actually employed: Provided, That the whole sum paid to such special inspectors shall not exceed the income to said department derived from registration fees provided by law. The persons so appointed shall have power to administer oaths in all matters relative to the dairy and food laws and shall take and subscribe the constitutional oath of office and file the same in the office of the secretary of state; and they shall hold office during the pleasure of the commissioner. The inspectors shall have the same right of access to the places to be inspected as the said commissioner or his deputy. The commissioner shall appoint such clerks as he may deem necessary for the transaction of the business of his office. The salaries and expenses authorized by this section shall be for the unexpired part of the fiscal year ending June thirty, nineteen hundred five, and each fiscal year thereafter. Said salaries are to be paid monthly on the warrant of the auditor general. The actual and necessary expenses of the commissioner, deputy and inspectors, in the performance of their official duties, shall be audited by the state board of auditors and paid upon the warrant of the auditor general. Such compensation and expenses shall be certified, audited and paid in the same manner as salaries and expenses paid similar officers. The deputy commissioner and regular inspectors shall enter into bonds with the people of the state of Michigan in the sum of one thousand dollars each, with sureties to be approved by the commissioner, conditioned for the faithful performance of their respective duties. The board of state auditors shall provide office room, and the necessary furniture and fixtures and the necessary stationery, supplies and printing for the conducting of the business of said commissioner, on his application to said board therefor. Said office shall be and remain in the city of Lansing.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905. Am. by Act No. 18, P. A. 1913]

5. (C. L., 4977) SEC. 5. The commissioner, by and with the consent of the Governor, shall appoint a suitable and competent person as State Analyst, who shall be a practical analytical chemist. The commissioner, in like manner, may appoint an assistant chemist. Before entering upon the duties of their offices, the analyst and assistant chemist shall take, subscribe and file in the office of the Secretary of State the constitutional oath of office. Their term of office shall continue during the pleasure of the commissioner. The Board of State Auditors shall provide a room in connection with the Dairy and Food Commissioner for the laboratory of the State Analyst and his assistant, and the necessary furniture and fixtures therefor. In case of the absence or inability of the State analyst or his assistant to perform his duty, the commissioner may appoint some competent person to perform the same temporarily, which person shall take, subscribe and file the constitutional oath of office. The salaries and expenses authorized by this section shall be for the unexpired part of the fiscal year ending June thirty, nineteen hundred five, and each fiscal year thereafter, said salaries to be payable monthly on the warrant of the Auditor General. The salary of the chemist shall be not to exceed two thousand dollars;

the salary of the assistant chemist shall be not to exceed twelve hundred dollars. The actual and necessary expenses of the chemist and the assistant chemist, in the performance of their official duties, shall be audited by the Board of State Auditors, and paid upon the warrant of the Auditor General. Such an amount as is found to be necessary in the proper performance of the work of the analyst may be expended for chemical supplies. Such compensations, expenses and supplies shall be certified, audited and paid in the same manner as the salaries, expenses and supplies of similar officers.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905.]

6. (C. L., 4978) Sec. 6. It shall be the duty of the Dairy and Food Commissioner to carefully inquire into the dairy and food and drink products and the several articles which are foods or drinks, or the necessary constituents of foods or drink, which are manufactured or sold or exposed or offered for sale in this State, and he may, in a lawful manner, procure samples of the same and direct the State Analyst to make due and careful examination of the same, and report to the commissioner the result of the analysis of all and any of such food and drink products or dairy products as are adulterated, impure or unwholesome in contravention of the laws of this State; and it shall be the duty of the commissioner to make a complaint against the manufacturer or vendor thereof in the proper county and furnish all evidence thereof, to obtain a conviction of the offense charged. The Dairy and Food Commissioner, or his deputy, or any person appointed by him for that purpose may make complaint and cause proceedings to be commenced against any person for the enforcement of any of the laws relative to adulterated, impure or unwholesome food or drink, and in such case he shall not be obliged to furnish security for costs and shall have power, in the performance of his duties, to enter into any creamery, factory, store, salesroom, drug store, or laboratory, or place where he has reason to believe food or drink is made, stored, sold or offered for sale and open any cask, tub, jar, bottle or package containing or supposed to contain, any article of food or drink and examine or cause to be examined the contents thereof, and take therefrom samples for analysis. The person making such inspection shall take such sample of such article or product in the presence of at least one witness, and he shall in the presence of said witness, mark or seal such sample and shall tender at the time of taking to the manufacturer or vendor of such product, or to the person having the custody of the same, the value thereof, and a statement in writing for the taking of such sample. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that filthy, or unsanitary conditions exist or are permitted to exist in the operation of any bakery, confectionery, or ice cream plant, or in any place where any food or drink products are manufactured, stored, deposited or sold for any purpose whatever, the proprietor or proprietors, owner or owners, of such bakery, confectionery or ice cream plant, or any person or persons, owning or operating any plant where any food or drink products are manufactured, stored, deposited or sold, shall be first notified and warned by the commissioner, his deputy or inspectors to place such bakery, confectionery

or ice cream plant, or any place where any food or drink products are manufactured, stored, deposited or sold in a sanitary condition within a reasonable length of time; and any person or persons owning and operating any bakery, confectionery or ice cream plant or any place where any food or drink products are manufactured, stored, deposited or sold, failing to obey such notice and warning, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than twenty-five dollars nor more than three hundred dollars and costs of prosecution, or imprisonment in the county jail not to exceed ninety days, or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1887. Am. by Act No. 268, P. A. 1899. Am. by Act No. 12, P. A. 1905.]

7. (C. L., 4979) SEC. 7. The commissioner, his deputy or any person by said commissioner duly appointed for that purpose, is authorized at all times to seize and take possession of any and all food and dairy products, substitutes therefor, or imitation thereof kept for sale, exposed for sale or held in possession or under the control of any person which in the opinion of the said commissioner or his deputy or such person by him duly appointed, shall be contrary to the provisions of this act or other laws which now exist or which may be hereafter enacted.

First, The person so making such seizure as aforesaid, shall take from such goods as seized a sample for the purpose of analysis and shall cause the remainder thereof to be boxed and sealed and shall leave the same in the possession of the person from whom they were seized, subject to such disposition as shall hereafter be made thereof according to the provisions of this act.

Second, The person so making such seizure, shall forward the sample so taken to the State Analyst for analysis, who shall make an analysis of the same and shall certify the results of such analysis, which certificate shall be prima facie evidence of the fact or facts therein certified to in any court where the same may be offered in evidence.

Third, If upon such analysis it shall appear that said food or dairy products are adulterated, substitutes or imitations within the meaning of this act, said commissioner, or his deputy or any person by him duly authorized may make complaint before any justice of the peace or police justice having jurisdiction in the city, village or township where such goods were seized, and thereupon said justice of the peace shall issue his summons to the person from whom said goods were seized, directing him to appear not less than six nor more than twelve days from the date of the issuing of said summons and show cause why said goods should not be condemned and disposed of. If the said person from whom said goods were seized cannot be found said summons shall be served upon the person then in possession of the goods. The said summons shall be served at least six days before the time of appearance mentioned therein. If the person from whom said goods were seized cannot be found, and no one can be found in possession of said goods, and the defendants shall not appear on the return day, then said justice of the peace shall proceed in said cause in the same manner provided by law where a writ of attachment is returned not personally served upon

any of the defendants and none of the defendants shall appear upon the return day.

Fourth, Unless cause to the contrary thereof is shown, or if said goods shall be found upon trial to be in violation of any of the provisions of this act or other laws which now exist or which may be hereafter enacted, it shall be the duty of said justice of the peace or police justice to render judgment that said seized property be forfeited to the State of Michigan, and that the said goods be destroyed or sold by the said commissioner for any purpose other than to be used for food. The mode of procedure before said justice shall be the same, as near as may be as in civil proceedings before justices of the peace. Either parties may appeal to the circuit court as appeals are taken from justices' courts, but it shall not be necessary for the people to give any appeal bond.

Fifth, The proceeds arising from any such sale shall be paid into the State treasury and credited to the general fund: Provided, That if the owner or party claiming the property or goods so declared forfeited can produce and prove a written guarantee of purity, signed by the wholesaler, jobber, manufacturer or other party from whom said articles were purchased, then the proceeds of the sale of such articles, over and above the cost of seizure, forfeiture, and sale, shall be paid over to such owner or claimant to reimburse him, to the extent of such surplus, for his actual loss resulting from such seizure and forfeiture, as shown by the invoice.

Sixth, It shall be the duty of each prosecuting attorney when called upon by said commissioners or by any person by him authorized as aforesaid, to render any legal assistance in his power in proceedings under the provisions of this act, or any subsequent act relative to the adulteration of food, for the sale of impure or unwholesome food or food products.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 268, P. A. 1899. Am. by Act No. 230, P. A. 1903.]

8. (C. L., 4980) SEC. 8. It shall be unlawful for the State Analyst, while he holds his office to furnish to any individual, firm or corporation, any certificate as to the purity or excellence of any article manufactured or sold by them to be used as food or in the preparation of food.

9. (C. L., 4981) SEC. 9. The commissioner shall make an annual report to the Governor on or before the first day of July in each year, and which shall be printed and published on or before the first day of September next thereafter, which report shall cover the doings of his office for the preceding fiscal year, which shall show, among other things, the number of manufactories and other places inspected and by whom, the number of specimens of food articles analyzed, and the State Analyst's report upon each one; the number of complaints entered against persons for violation of the laws relative to the adulteration of food, the number of convictions had, and the amount of fines imposed therefor, together with such recommendations relative to the statutes in force as his experience may justify. The commissioner shall also prepare, print and distribute to all the papers of the State, and to such persons as may be interested or may apply therefor, a

monthly bulletin, in suitable paper covers, containing results of inspections, the results of analyses made by the State Analyst, with popular explanation of the same, and such other information as may come to him in his official capacity relating to the adulteration of food and drink products and of dairy products, so far as he may deem the same of benefit and advantage to the public; also a brief summary of all the work done during the month by the commissioner and his assistants in the enforcement of the laws of the State, but not more than ten thousand copies of each such monthly bulletin shall be printed.

[Am. by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899.]

10. (C. L., 4982) SEC. 10. Any person who shall wilfully hinder or obstruct the Dairy and Food Commissioner, or his deputy or other person or inspector by him duly authorized, in the exercise of the powers conferred upon him by this act, shall be deemed guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than ten days nor more than ninety days, or both such fine and imprisonment in the discretion of the court.

[Added by Act No. 245, P. A. 1895.]

11. (C. L., 4983) SEC. 11. The sum of thirty-five thousand dollars is hereby appropriated for the fiscal year ending June 30, nineteen hundred six, and for each fiscal year thereafter, there is hereby appropriated the sum of thirty-five thousand dollars. Out of the amounts appropriated by this act shall be paid all salaries and expenses and chemical supplies provided for therein: Provided, That all expenses for stationery and printing shall be audited and paid in the same manner as other State printing and stationery.

[Added by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899. Am. by Act No. 186, P. A. 1901. Am. by Act No. 12, P. A. 1905.]

12. (C. L., 4984) SEC. 12. The Auditor General is hereby directed to annually add to and incorporate into the State tax, to be levied each year, the sum of thirty-five thousand dollars, which, when collected, shall be credited to the general fund to reimburse the same for the money appropriated by this act.

[Added by Act No. 245, P. A. 1895. Am. by Act No. 154, P. A. 1897. Am. by Act No. 268, P. A. 1899. Am. by Act No. 186, P. A. 1901. Am. by Act No. 230, P. A. 1903. Am. by Act No. 12, P. A. 1905.]

13. SEC. 13. It shall also be the duty of the Dairy and Food Commissioner to foster and encourage the dairy industry of the State, and, for that purpose, he shall investigate the general conditions of the creameries, cheese factories, condensed milk factories, skimming stations, milk stations and farm dairies in this State, with full power to enter upon any premises for such investigation, with the object in view of improving the quality and creating and maintaining uniformity of the dairy products of the State; and should it become necessary, in the judgment of the Dairy and Food Commissioner, he may cause in-

struction to be given in any creamery, cheese factory, condensed milk factory, skimming station, milk station or farm dairy, or in any locality in this State, and in order to secure the proper feeding and care of cows, or the practical operation of any plant producing dairy products, and in order to secure such a uniform and standard quality of dairy products in this State, he shall furnish a sufficient number of competent inspectors, the appointment of whom is provided for in section four of this act, and they shall be duly qualified to act as such inspectors.

[Added by Act No. 12, P. A. 1905.]

14. SEC. 14. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that any person is using, selling or furnishing to any skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade or to any consumer of milk, any impure or unwholesome milk or cream, which impurity or unwholesomeness is caused by the unsanitary or filthy condition of the premises where cows are kept, or by the unsanitary or filthy care or handling of the cows, or from the use of unclean utensils, or from unwholesome food, or from any other cause, the person so using, selling or furnishing to any skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade, or to any consumer of milk, any such milk or cream, shall first be notified and warned by the commissioner, his deputy or inspectors not to use, sell, or furnish such milk or cream to such skimming station, creamery, cheese factory, condensed milk factory, milk depot, farm dairy, milk dealer, the retail trade, or to any consumer of milk, and any person failing to obey such notice and warning and continuing to use, sell or furnish to any skimming station, creamery, cheese factory, condensed milk factory, farm dairy, milk dealer or to the retail trade such impure or unwholesome milk or cream, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine not less than ten dollars, nor more than fifty dollars, and costs of prosecution, or imprisonment in the county jail, not to exceed ninety days, or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Added by Act No. 12, P. A. 1905.]

15. SEC. 15. Whenever it is determined by the Dairy and Food Commissioner, his deputy or inspectors, that unsanitary conditions exist or are permitted to exist in the operation of any skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy, the proprietor or proprietors, or manager of said skimming station, creamery, cheese factory, condensed milk factory or farm dairy, shall be first notified and warned by the commissioner, his deputy or inspectors to place such skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy in a sanitary condition, within a reasonable length of time; and any person or persons owning or operating such skimming station, creamery, cheese factory, condensed milk factory, milk depot or farm dairy, failing to obey such notice and warning, shall be guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than twenty-five

dollars, nor more than three hundred dollars, and costs of prosecution, or imprisonment in the county jail, not to exceed ninety days or until such fine and costs are paid, or both fine and imprisonment at the discretion of the court.

[Added by Act No. 12, P. A. 1905.]

16. SEC. 16. It shall be the duty of the proprietor or proprietors, (manager or managers), of every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot in the State where milk or cream is received by purchase or otherwise from three or more persons within thirty days after the commencement of the operation of said cheese factory, condensed milk factory or milk or cream depot and annually on the first day of April thereafter to register with the Dairy and Food Commissioner upon blanks furnished by said official, the location of such skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot, and the name of its owner or owners and manager. And it shall be the duty of the proprietor or proprietors or manager of every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot in this State, where milk or cream is received by purchase or otherwise from three or more persons, to file a report with the Dairy and Food Commissioner, said report to be made on or before April first of each year, upon blanks furnished by said official, and to show the amount of milk or cream received by said skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot during the year ending December 31 preceding; and said report shall show the amount of butter, cheese or condensed milk manufactured during the year, together with a list of the names and postoffice addresses of the patrons of said skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot. Every skimming station, creamery, cheese factory, condensed milk factory or milk or cream depot, so registering and so reporting, shall pay to the office of the State Dairy and Food Commissioner an annual registration fee of five dollars, to be paid at the time of such registration. Whoever violates any of the provisions of this section, shall be deemed guilty of a misdemeanor, and for each and every offense shall be punished by a fine of not less than fifty dollars nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail for not more than thirty days or both. The money so collected by the Dairy and Food Commission shall be paid into the State Treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner, in addition to the annual appropriation therefor.

[Added by Act No. 12, P. A. 1905. Am. No. 242, P. A. 1913.]

17. SEC. 17. Any person, persons or corporation who shall sell milk or cream from a wagon or other conveyance, depot or store, or who shall sell or deliver milk or cream to a hotel, restaurant, boarding house or any public place, shall be considered a milk dealer; and every milk dealer who shall sell milk or cream from a wagon or other conveyance, depot or store, or who shall sell, or deliver milk or cream to a hotel, restaurant, boarding house or any public place in any city, town or village of this State, must first obtain a license from the Dairy

and Food Commissioner to sell such milk or cream. A license shall be required for each wagon or other conveyance, depot or store. Each dealer shall pay to the Dairy and Food Commissioner a license fee of one dollar for each license so granted, which license must be obtained on or before the first day of July of each year. The moneys received by the Dairy and Food Commissioner, in payment of such licenses, shall be paid into the State Treasury and be used to help defray the expense of the office of the Dairy and Food Commissioner in addition to the annual appropriation. All licenses shall be used only in the name of the owner of the wagon, depot or store, and shall, for the purpose of this act, be prima facie evidence of ownership. No license shall be sold, assigned or transferred. Each license shall record the name, residence, place of business, number of wagons, depots or stores used (where more than one is employed) and the number of the license. Whoever violates any of the provisions of this section, insofar as relates to registration and the securing of licenses, shall be deemed guilty of a misdemeanor, and for each and every offense shall be punished by a fine not less than five dollars, nor more than twenty-five dollars and the costs of prosecution, or by imprisonment in the county jail for not more than thirty days, or both.

[Added by Act No. 12, P. A. 1905.]

18. SEC. 18. Any manufacturer, company, person or persons who shall sell, offer or expose for sale or for distribution, in this State, any concentrated commercial feeding stuff used for feeding live stock, shall furnish with each car, or other amounts shipped in bulk, and shall affix to every package of such feeding stuff, in a conspicuous place, on the outside thereof, a plainly printed statement, clearly and truly certifying the number of net pounds in the car or package sold or offered for sale, the name or trade-mark under which the article is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business, and a chemical analysis, stating the percentages it contains of crude protein, crude fiber, nitrogen-free extract and ether extract, all constituents to be determined by the methods adopted by the association of official agricultural chemists. Whenever any feeding stuff is sold at retail, in bulk or in packages belonging to the purchaser, the agent or dealer shall furnish to him a certified copy of the chemical analysis named in this section.

(a) The term concentrated commercial feeding stuffs as used in this act shall include linseed meal, cotton seed meal, pea meals, coconut meals, gluten meals, oil meals of all kinds, gluten feeds, maize feeds, starch feeds, mixed sugar feeds, hominy feeds, rice meals, oat feeds, corn and oat feeds, meat meals, dried blood, clover meals, mixed feeds of all kinds, slaughter house waste products; also all condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended for feeding to domestic animals: Provided, That such feeding stuffs, as defined above, shall not include hays, straws, fodders, ensilage, the whole seeds nor the unmixed meals made directly from the entire grains of wheat, rye, barley, oats, flaxseed, maize, buckwheat, wet brewers' grains, malt sprouts, wet or dried beet pulp when unmixed with other materials. Neither shall it include wheat, rye and buckwheat brans or middlings not mixed with other



substances, but sold separately as distinct articles of commerce, nor pure grains ground together.

(b) Before any manufacturer, company, person or persons shall sell, offer or expose for sale in this State any concentrated commercial feeding stuff, he or they shall, for each and every feeding stuff bearing a distinguishing name or trade-mark, file annually, with the Dairy and Food Commissioner a certified copy of the chemical analysis and certificate referred to in this section, and shall deposit with said Dairy and Food Commissioner a sealed glass jar, or bottle, containing at least one pound of the feeding stuff to be sold or offered for sale, together with an affidavit that it is a fair sample of the article thus to be sold or offered for sale. He or they shall also pay annually into the State Treasury a license fee of twenty dollars for each and every brand of feeding stuff he offers or exposes for sale in this State. Said fee is to be paid on or before April first of each year: Provided, That whenever the manufacturer or importer shall have paid this license fee, his agents shall not be required to do so. Whenever any manufacturer, importer, agent or seller of any commercial feeding stuff desires at any time to sell such material and has not paid the license fee therefor, he shall pay the license fee prescribed in this section, before making any such sale. The money collected under the provisions of this act shall be paid into the State Treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner, in addition to the regular appropriation therefor.

(c) Whenever the manufacturer, importer, agent or seller of any commercial feeding stuff shall have complied with the requirements of this section, the Dairy and Food Commissioner shall issue or cause to be issued, a license, permitting the sale of said feeding stuff, which license shall terminate on April first following the date of issue.

(d) All such analyses of commercial feeding stuffs required by this act, shall be made under the direction of the Dairy and Food Commissioner, and shall be paid for out of the funds arising from the license fees provided for in this section.

(e) The Dairy and Food Commissioner shall publish, or cause to be published in bulletin form, at least annually a correct statement of all analyses made, together with any incidental information concerning same which he may deem proper.

(f) Any manufacturer, importer, company, agent, person or persons, who shall sell, offer or expose for sale, without first complying with the provisions of this act, any commercial feeding stuff, or shall attach or cause to be attached to any car, package or other quantity of said feeding stuff, an analysis stating that it contains a larger percentage of any one or more of the constituents named in this section than it really does contain, shall, upon conviction thereof, be fined not less than one hundred dollars for the first offense, and not less than three hundred dollars for every subsequent offense, and the offender shall also be liable for damages sustained by the purchaser of such feeding stuff on account of such misrepresentation.

(g) The Dairy and Food Commissioner, by any duly authorized agent, is hereby authorized to select from any package of commercial or other feeding stuff exposed or offered for sale in this State, a quantity not exceeding two pounds for a sample, such sample to be used for the purposes of an official analysis and for comparison with the certi-

ificate filed with the Dairy and Food Commissioner, and with the certificate affixed to the package on sale.

[Added by Act No. 12, P. A. 1905.]

19. SEC. 19. The published annual report of the Dairy and Food Commissioner which shall be made to the Governor, shall include a complete accounting of all moneys received by the department from every source, and the amount expended by the department.

[Added by Act No. 12, P. A. 1905.]

20. SEC. 20. All acts and parts of acts inconsistent with this act so far as they are inconsistent are hereby repealed.

This act is ordered to take immediate effect.

[Added by Act No. 12, P. A. 1905.]

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(Act No. 167, Public Acts, 1899.)

AN ACT in relation to the powers and duties of the Dairy and Food Commissioner of the State of Michigan.

*The People of the State of Michigan enact:*

21. SECTION 1. That any person who shall obstruct the Dairy and Food Commissioner, or his deputy, or any of his duly appointed inspectors, by refusing to allow him entrance to any place where he is authorized to enter in the discharge of his official duty, or refuses to deliver to him a sufficient sample for the analysis of any article of food or drink sold, offered or exposed for sale, or in his possession for the purpose of sale, wherever the same may be found, when the same is requested and when the value thereof is tendered, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not less than ten days or more than ninety days, or by both such fine and imprisonment in the discretion of the court, for each and every offense.

This act is ordered to take immediate effect.

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## STANDARDS.

(Act No. 64, Public Acts, 1913.)

AN ACT to define and fix standards of purity for foods, beverages, condiments, confectionery and drugs in this state in prosecutions arising under the food, beverage and drug laws of the state of Michigan.

*The People of the State of Michigan enact:*

22. SECTION 1. In all prosecutions arising under the food and drug

laws of this State for the manufacture or sale of an adulterated, misbranded or otherwise unlawful article of food, drink, condiment or drug, the latest standards of purity for food products, established by the United States secretary of agriculture, shall be accepted as the legal standards, except in cases where other standards are specifically prescribed by the laws of this State.

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### GENERAL FOOD LAW.

(Act No. 193, Public Acts, 1895.)

AN ACT to prohibit and prevent adulteration, fraud and deception in the manufacture, and sale of articles of food and drink.

*The People of the State of Michigan enact:*

23. (C. L., 5010) SECTION 1. No person, firm or corporation by themselves or their agents or servants shall within this State, have in their possession with intent to sell, or offer or expose for sale, or sell any article of food which is adulterated or misbranded within the meaning of this act.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 162, P. A. 1913.]

24. (C. L., 5011) SEC. 2. The term food as used herein, shall include all articles used for food, drink, confectionery or condiment intended to be eaten or drank by man or other animals, whether simple, mixed or compound.

[Am. by Act No. 162, P. A. 1913.]

25. (C. L., 5012) SEC. 3. An article shall be deemed to be adulterated within the meaning of this act:

First, If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity;

Second, If any inferior or cheaper substance or substances have been substituted wholly or in part for it;

Third, If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it;

Fourth, If it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in the case of milk, if it is the product of a diseased animal;

Fifth, If it is colored, coated, polished, bleached or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is;

Sixth, If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, That nothing in this act shall prevent the coloring of pure butter.

SEC. 3. (a) An article shall be deemed to be misbranded within the meaning of this act:

First, If it is an imitation of or is offered for sale under the name of another article;

Second, If it is labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package;

Third, If in package form every package, box, bottle, basket or other container does not bear the true net weight, excluding the wrapper or container, which shall be stated in terms of pounds, ounces and grains avoirdupois weight or the true net measure, which measure, in case of liquids, shall be in terms of gallons of two hundred and thirty-one cubic inches or fractions thereof, as quarts, pints and ounces or the true numerical count, as the case may be, expressed on the face of the principal label in plain English words or numerals, so that it can be plainly read: Provided, however, That reasonable variations shall be permitted and tolerances therefor and also exemptions as to small packages shall be established and promulgated by the Dairy and Food Commissioner; Provided, however, That no penalty of fine, imprisonment or confiscation shall be enforced for any violation of subdivision third of this section prior to September 1, 1914, as to goods in the hands of wholesalers or retailers when this act takes effect or received prior to January 1, 1914. The provisions of this subdivision shall not apply to beverages in glass containers;

Fourth, If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, design or device shall be false or misleading in any particular: Provided, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer or jobber or retail merchant with an established business, and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound and is not in violation of any of the foregoing provisions of this act. Every article of food as defined in the statutes of this State shall be sold by weight, measure or numerical count and as now generally recognized by trade custom, except where the parties otherwise agree, and shall be labeled in accordance with the provisions of the food and beverage laws of this State. Only those products shall be sold by numerical count which cannot well be sold by weight or measure. All foods not liquid, if sold by measure, shall be sold by standard dry measure, the quart of which contains sixty-seven twenty one-hundredths cubic inches.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 162, P. A. 1913.]

26. (C. L., 5013) SEC. 4. No person, by himself or his agents or servants, shall manufacture for sale or offer or expose for sale, or sell, as butter, and the legitimate product of the dairy or creamery,

any article not made exclusively of milk or cream, but into which the oil or fat of animals, or any other oils not produced from milk, enters as a component part, has been introduced to take the place of cream. Whoever violates the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail, or the State House of Correction and Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

27. SEC. 5. No person shall manufacture, deal in, sell, offer or expose for sale or exchange, any article or substance in the semblance of, or in imitation of cheese made exclusively of unadulterated milk or cream, or both, into which any animal, intestinal or offal fats or oils or melted butter in any condition or state, or modification of the same, or oleaginous substances of any kind not produced from unadulterated milk or cream shall have been introduced. All cheese manufactured or sold within this State shall be divided into two grades, to be known as "full cream cheese" and "skimmed milk cheese." All full cream cheese shall contain in water free substance not less than thirty per centum of milk fat, as may appear upon proper test, and all cheese containing less than thirty per centum of milk fat shall be known and branded as "skimmed milk cheese": Provided, That the provisions of this act shall not be construed to apply to such cheese as is known as "fancy cheese" and is under five pounds in weight each, nor to what is known as "Swiss cheese," "brick cheese," "Dutch cheese" or "cottage cheese," and does not contain anything injurious to health.

[Am. by Act No. 73, P. A. 1913.]

28. SEC. 6. Every manufacturer of full cream cheese may put a brand upon each cheese, indicating "full cream cheese," and no person shall use such a brand upon any cheese made from milk from which any of the cream has been taken. Every manufacturer of imitation cheese, as defined by this act, shall put a brand upon each cheese so manufactured, indicating "skimmed milk cheese," which brand shall be in plain Roman letters, not less than one-half inch in length, and so made, placed or attached that it can easily be seen and read and cannot be easily defaced, and the same shall be placed upon the cloth surrounding such cheese, as well as upon the container thereof.

[Am. by Act No. 118, P. A. 1897. Am. by Act No. 73, P. A. 1913.]

29. SEC. 7. The Dairy and Food Commissioner shall procure and issue to the cheese manufacturers of the State, on proper application, which application shall be made on or before the first day of April in each year, and under such regulation as to the custody and use thereof as he may prescribe, a uniform stencil brand, bearing a suitable device or motto and the words "Michigan full cream cheese," or "Michigan skimmed milk cheese." Every such brand shall be used on the outside of the cheese, and upon the package containing the same, and shall bear a separate number for each separate factory. The said commis-

sioner shall keep a book in which shall be registered the name, location and number of each manufactory using the brand, and the name or names of persons at each factory authorized to use the same. The commissioner shall receive a fee of one dollar for each registration, said fee to be paid by the party applying for the same, which amount shall be accounted for and used as a part of the fund appropriated for the enforcement of the laws of this State with which the Dairy and Food Commissioner is charged. No person shall knowingly offer, sell or expose for sale, in any package, cheese which is falsely branded or labeled. Whoever shall violate the provisions of sections five, six, seven or eight of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars and the costs of prosecution, or by imprisonment in the county jail or the Michigan Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

[Am. by Act No. 73, P. A. 1913.]

30. SEC. 8. The proprietor or keeper of any hotel, restaurant, eating saloon, boarding house or other place where imitation cheese is sold or furnished to persons paying for the same, shall have placed on the walls of every store or room where imitation cheese is sold or furnished, a white placard on which is printed in black ink, in plain Roman letters of not less than three inches in length, and not less than two inches in width, the words "Skimmed Milk Cheese Sold or Used Here," and shall at all times keep the same exposed in such conspicuous place as to be readily seen by any and all persons entering such store, or other room or rooms, and any person or persons, violating this section shall be deemed guilty of a misdemeanor, and punished as provided in section seven of this act.

[Am. by Act No. 73, P. A. 1913.]

31. (C. L., 5018) SEC. 9. No person shall within this State manufacture for sale, have in his possession with intent to sell, offer or expose for sale, or sell as lard, any substance not the legitimate and exclusive product of the fat of the hog.

32. (C. L., 5019) SEC. 10. Every person who manufactures for sale, has in his possession with intent to sell, offers or exposes for sale, or sells, any substance made in the semblance of lard, or as an imitation of lard, and which consists of any mixture or compound of animal or vegetable oils or fats other than hog fat, in the form of lard, shall cause the tierce, barrel, tub, pail or package containing the same to be distinctly and legibly branded or labeled "Lard substitute or compound," and every person who manufactures for sale, has in his possession with intent to sell, offers or exposes for sale or sells, any substance made in the semblance of lard or as an imitation of lard, or as a substitute for lard, and which is designed to take the place of lard, and which consists of any mixture or compound of lard with animal or vegetable oils or fats, shall cause the tierce, barrel, tub, pail or package containing the same to be distinctly and legibly branded or labeled either

"Adulterated lard," "Lard compound," or "Lard substitute." Such brands or labels shall be in letters not less than one inch in length and shall be followed with the name of the maker and factory, and the location of such factory.

33. (C. L., 5020) SEC. 11. Every dealer or trader who, by himself or agent, or as the servant or agent of another person, offers or exposes for sale, or sells any form of lard substitute or adulterated lard, as hereinbefore defined, shall securely affix or cause to be affixed to the package wherein the same is contained, offered for sale or sold, a label upon the outside and face of which is distinctly and legibly printed in letters not less than one-half inch in length, the words "Lard substitute" or "Adulterated lard" or "Lard compound" or other appropriate word which shall correctly express its nature and use.

34. (C. L., 5021) SEC. 12. The having in possession of any lard substitute or adulterated lard or lard compound, as hereinbefore defined, which is not branded or labeled as hereinbefore required and directed, upon the part of any dealer or trader, or any person engaged in the public sale of such articles, shall for the purpose of the act be deemed prima facie evidence of intent to sell the same.

35. (C. L., 5022) SEC. 13. No person, firm or corporation in this State shall manufacture for sale, or sell, or offer or expose for sale, as fruit jelly or fruit butter, any jelly or imitation fruit butter or other similar compound made or composed in whole or in part of glucose, dextrine, starch or other substances, and colored in imitation of fruit jelly or fruit butter; nor shall any such jelly, fruit butter or compound be manufactured or sold, or offered for sale, under any name or designation whatever, unless the same shall be composed entirely of ingredients not injurious to health, and shall not be colored in imitation of fruit jelly, and every can, pail or package of such jelly or butter sold in this State shall be distinctly and durably labeled "Imitation fruit jelly or butter," with the name of the manufacturer and the place where made. Whoever violates the provisions of this section shall be deemed guilty of a misdemeanor, and when convicted thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia for not less than ninety days nor more than two years, or by both such fine and imprisonment in the discretion of the court.

36. (C. L., 5023) SEC. 14. No packer or dealer in preserved or canned fruits and vegetables, or other articles of food, shall sell or offer for sale such canned articles, unless such articles shall be entirely free from substances or ingredients deleterious to health, and unless such articles bear a mark, stamp, brand or label bearing the name and address of the firm, person or corporation that packs the same. All "Soaked or bleached goods," or goods put up from products dried before canning, shall be plainly marked, branded, stamped or labeled as such, with the words "Soaked or bleached goods" in letters not less than two-line pica in size, showing the name of the article and the name and address of the packer.

37. (C. L., 5024) SEC. 15. No person shall manufacture or sell, or offer for sale any manufactured or artificial coffee berry in imitation of the genuine berry. No person shall manufacture, sell or offer or

expose for sale any ground or prepared coffee, which is adulterated with chicory or other substance not injurious to health, unless each package thereof shall be distinctly labeled or marked "Coffee compound," together with the name and address of the manufacturer or compounder thereof, and has no other label of whatever name or designation. No person shall offer or expose for sale, have in his possession with intent to sell, or sell any molasses, syrup or glucose, unless the barrel, cask, keg, can or pail containing the same shall be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any molasses or syrup mixed with glucose, unless the barrel, cask, keg or pail containing the same be distinctly branded or labeled "Glucose mixture," and the per cent in which glucose enters into its composition. Such barrel, cask, keg or pail shall be branded or labeled in a conspicuous place; and such brands or labels shall be in letters of not less than one-half inch in length. Glucose and glucose mixtures shall have no other designation than herein required.

[Am. by Act No. 118, P. A. 1897.]

38. (C. L., 5025) SEC. 16. No person shall within this State manufacture, brew, distill, have or offer for sale, or sell, any spirituous or fermented or malt liquors, containing any substance or ingredient not normal or healthful, to exist in spirituous, fermented or malt liquors, or which may be deleterious or detrimental to health when such liquors are used as a beverage.

39. (C. L., 5026) SEC. 17. The taking of orders or the making of agreements or contracts, by any person, firm or corporation, or by any agent or representative thereof, for the future delivery of any of the articles, products, goods, wares or merchandise embraced within the provisions of this act, shall be deemed a sale within the meaning of this act.

40. (C. L., 5027) SEC. 18. Whoever shall falsely brand, mark, stencil or label any article or product required by this act to be branded, marked, stenciled, or labeled, or shall remove, alter, deface, mutilate, obliterate, imitate or counterfeit any brand, mark, stencil or label so required, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than one hundred nor more than one thousand dollars and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

41. (C. L., 5028) SEC. 19. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and where no specific penalty is prescribed by this act shall be punished by a fine of not less than twenty-five nor more than five hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

[Am. by Act No. 117, P. A. 1899.]



42. (C. L., 5029) SEC. 20. It shall be the duty of the Dairy and Food Commissioner of the State to investigate all complaints of violations of this act, and take all steps necessary to its enforcement. It shall be the duty of all prosecuting officers of this State to prosecute to completion all suits brought under the provisions of this act upon the complaint of the commissioner or of any citizen. It shall be the duty of all food inspectors in cities to examine all complaints made to them of violation of this act, and to render assistance in enforcing its provisions. It shall also be the duty of all health boards in cities and health officers in townships to take cognizance of and report or prosecute all violations of this act that may be brought to their notice, or they may have cognizance of, within their jurisdiction.

43. SEC. 21. All acts and parts of acts inconsistent with this act are hereby repealed.

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### BUCKWHEAT FLOUR.

(Act No. 208, Public Acts, 1903.)

AN ACT in relation to the manufacture and sale of buckwheat flour.

*The People of the State of Michigan enact:*

44. SECTION 1. Within this State no person shall manufacture, offer or expose for sale, keep in possession with intent to sell, or sell, any ground buckwheat containing any product of wheat, corn, rice or other foreign substance, unless each and every package thereof be distinctly and legibly branded or labeled "Buckwheat Flour Compound" in letters not less than one-half inch in length and be followed with the name of the maker and factory and the location of such factory.

45. SEC. 2. Any brand or label herein required shall be an inseparable part of the general or distinguishing label, and such label shall be that principal and conspicuous sign under which it is sold, and any other label or printed matter upon the package shall not be in contravention of the requirements of this act.

46. SEC. 3. The having in possession of any buckwheat flour compound, which is not branded or labeled as hereinbefore required and directed upon the part of any person engaged in the public or private sale of such article, shall, for the purpose of this act, be deemed prima facie evidence of intent to sell the same.

47. SEC. 4. The taking of orders or the making of agreements or contracts by any person, firm or corporation or by any agent or representative thereof, for the future delivery of buckwheat flour compound shall be deemed a sale within the meaning of this act.

48. SEC. 5. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty nor more than ninety

days, or by both such fine and imprisonment in the discretion of the court.

49. SEC. 6. Act number eighty-four of the Public Acts of eighteen hundred ninety-seven, entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of buckwheat flour," being section four thousand nine hundred ninety-four to five thousand two, both inclusive, of the Compiled Laws of one thousand eight hundred ninety-seven is hereby repealed.

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## VINEGAR.

(Act No. 384, Session Laws, 1913.)

AN ACT in relation to the manufacture and sale of vinegar, and to repeal act number seventy-one of the Public Acts of eighteen hundred ninety-seven, being sections five thousand three to five thousand six inclusive of the Compiled Laws of eighteen hundred ninety-seven, and all other acts and parts of acts inconsistent with this act.

*The People of the State of Michigan enact:*

50. SECTION 1. No person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act.

51. SEC. 2. The word "vinegar" as used herein is limited to a water solution of acetic acid derived by the alcoholic and subsequent acetous fermentations of fruits, grain, vegetables, sugar or syrups, and if not distilled must carry in solution the extractive matter derived solely from the substances indicated on the label as its source.

52. SEC. 3. No vinegar shall be sold or exposed for sale as apple or cider vinegar which is not the legitimate product of pure apple juice. The term "cider vinegar" as used herein shall be construed to mean vinegar derived by the alcoholic and subsequent acetous fermentation of the expressed juice of apples, the acidity, solids and ash of which have been derived exclusively from apples, and which contains not less than four per cent of absolute acetic acid. Cider vinegar which during the course of manufacture has developed in excess of four per cent acetic acid, may be reduced to a strength of not less than four per cent, and cider vinegar so reduced shall not be regarded as adulterated. Every manufacturer or producer of cider vinegar shall plainly brand on the head of the cask, barrel or keg or other container of such vinegar, his name, place of business and the words "fermented cider vinegar," and no person shall mark or brand as cider vinegar any package containing that which is not cider vinegar. Any vinegar sold or offered for sale shall be marked or branded plainly upon the package or container from which it is sold and also on the original package or container in

which it is sold or delivered, in a manner to show its true character and source.

53. SEC. 4. All sugar vinegar sold or exposed for sale as such shall be strictly and distinctly fermented from sucrose, molasses or refiner's syrup.

54. SEC. 5. No vinegar shall be sold or exposed for sale as malt vinegar which is not fermented strictly and distinctly from barley malt, or cereals whose starch has been converted to malt.

55. SEC. 6. No vinegar shall be sold or exposed for sale in which foreign substances, drugs or acids shall have been introduced. No vinegar shall contain any artificial coloring matter, and all vinegar shall have an acidity of not less than four per cent by weight of absolute acetic acid. If vinegar contains any artificial matter, or less than the required amount of acidity, it shall be deemed to be adulterated.

56. SEC. 7. All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded "fermented" vinegar, with the name of the fruit or substance from which such vinegar has been made.

57. SEC. 8. All vinegar made by acetous fermentation of dilute distilled alcohol shall be branded "distilled" vinegar, together with the name of the substance or substances from which it is made, and all vinegar made wholly or in part from distilled vinegar shall be conspicuously labeled "distilled vinegar."

58. SEC. 9. Whoever violates any of the provisions of this act shall, upon conviction, be punished by a fine of not more than two hundred dollars or imprisonment in the county jail not to exceed six months or both such fine and imprisonment in the discretion of the court.

59. SEC. 10. Act number seventy-one of the Public Acts of eighteen hundred ninety-seven, being sections five thousand three to five thousand six of the Compiled Laws of eighteen hundred ninety-seven, and all other acts and parts of acts inconsistent with this act are hereby repealed.

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## MILK.

(Act No. 26, Public Acts, 1873.)

AN ACT to prevent and punish offenders for the adulteration of milk, and the products made therefrom, and to repeal an act, entitled "An act to prevent the adulteration of milk and to prevent the traffic in impure and unwholesome milk," approved March thirty-first, eighteen hundred and seventy-one.

*The People of the State of Michigan enact:*

60. (C. L., 11411) SECTION 1. That whoever shall knowingly sell to any person or persons, or sell, deliver or bring to be manufactured to any cheese or butter manufactory in this State, any milk diluted with water, or in any way adulterated, or milk from which any cream

has been taken, or milk commonly known as "skimmed milk," or shall keep back any part of the milk known as "strippings," with intent to defraud, or shall knowingly sell milk, the product of a sick or diseased animal or animals, or any milk produced from any cow fed upon the refuse of a distillery, or of a brewery, or upon any substance deleterious to the quality of the milk, or shall knowingly use any poisonous or any deleterious material in the manufacture of any cheese or butter, or shall knowingly sell or offer to sell any cheese or butter, in the manufacture of which any poisonous or deleterious substance has been used, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than ten dollars nor more than one hundred dollars, and may be committed to the county jail until such fine shall be paid: Provided, That such imprisonment shall not exceed ninety days; and shall be liable in double the amount of damages to the person or persons, firm, association, or corporation upon which such fraud shall have been committed. An act, entitled "An act to prevent the adulteration of milk and to prevent the traffic in impure and unwholesome milk," approved March thirty-first, eighteen hundred and seventy-one, is hereby repealed: Provided, That any right accrued or forfeiture incurred under said act, shall remain valid and binding, and may be enforced under said act as if the same were not repealed.

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(Act No. 246, Public Acts, 1887.)

AN ACT to prevent the sale of impure, unwholesome, adulterated, or swill milk in the State of Michigan, and to provide for inspectors.

*The People of the State of Michigan enact:*

61. (C. L., 11412) SECTION 1. That it shall be unlawful for any person, either by himself or agent, to sell or expose for sale within the State of Michigan any unwholesome, watered, or adulterated or impure milk or swill milk or colostrum or milk from cows kept upon garbage, swill or any substance in a state of fermentation or putrefaction or other deleterious substances, or from cows kept in connection with any family in which there are infectious diseases. The addition of water or ice to milk is hereby declared an adulteration.

[Am. by Act No. 219, P. A. 1889.]

62. (C. L., 11413) SEC. 2. Any person who shall violate any of the provisions of the preceding section shall be punished by a fine not to exceed one hundred dollars or (by) imprisonment not to exceed three months or by both such fine and imprisonment in the discretion of the court.

63. (C. L., 11414) SEC. 3. It shall be the duty of the metropolitan police commissioners of the city of Detroit, by and with the consent and advice of the board of health of the city of Detroit, to appoint an

inspector, who shall be a person of previous practical experience. Said inspector may be created captain, sergeant or roundsman of the said police force of the city of Detroit, at the option of the board of metropolitan police commissioners.

64. (C. L., 11415) SEC. 4. It shall be the duty of said inspector to personally view, so far as possible, all milk exposed for sale in said city, and to visit all dairy houses, barns or stables in said city or the county of Wayne, to inspect the same, and the animals held therein, and to visit all places where milk is kept or exposed for sale in the city of Detroit, and to inspect and ascertain the condition of said milk. He may detail any patrolman of said city to assist him in the performance of any or all of the duties enjoined on him by this act: Provided, always, That said inspector and any policeman so detailed shall always be subject to the provisions of the law establishing and governing the metropolitan police of said city.

65. (C. L., 11416) SEC. 5. It shall be the duty of said inspector or of his assistant, and of all other inspectors appointed under this act, to make complaint in writing before a police justice or justice of the peace, or other court having jurisdiction thereof, of every violation of this act coming to his knowledge.

[Am. by Act No. 219, P. A. 1889.]

66. (C. L., 11417) SEC. 6. Each and every quantity of milk sold or exposed for sale contrary to the provisions of this act, shall constitute a separate offense.

67. (C. L., 11418) SEC. 7. Any person who shall refuse to permit the said inspector, or his assistant (assistants) to perform his duty under this act, either by refusing him entrance to his premises or by concealing any milk, or refusing to permit any milk or animal or premises wherein animals are kept, to be viewed and inspected as herein provided, or by in any manner hindering or resisting any said inspector or assistant inspector in the performance of his duty, shall be guilty of a misdemeanor, and punished therefor.

68. (C. L., 11419) SEC. 8. Authority is hereby given the common council of any city, and the board of trustees or council of any village, to appoint an inspector of milk in any such city or village, and to fix their compensation, and when appointed the said inspectors of milk shall have all the powers given by section four of this act, and shall perform all the duties required of inspectors of milk as provided herein, and such other powers and duties as may be conferred or imposed by the ordinances of said cities or villages.

69. (C. L., 11420) SEC. 9. Whoever shall adulterate by himself or by his servant or agent, or sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or exposes or offers for sale or exchange, adulterated milk or milk to which water or any foreign (substance) substances in any state of fermentation or putrefaction, or from sick or diseased cows, shall be guilty of a misdemeanor, and shall, for every such offense, be punished by a fine not exceeding one hundred dollars or by imprisonment in the county jail

or the State House of Correction and Reformatory at Ionia not exceeding three months.

[Added by Act No. 219, P. A. 1889.]

70. (C. L., 11421) SEC. 10. Whoever shall adulterate, himself or by his servant or agent, sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange the same, or exposes or offers for sale as pure milk, any skimmed milk from which the cream or any part thereof has been removed shall be guilty of a misdemeanor, and shall for such offense, be punished by the penalty provided in the preceding section.

[Added by Act No. 219, P. A. 1889.]

71. (C. L., 11422) SEC. 11. Any dealer in milk who shall by himself, servant or agent, sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver the same, milk from which the cream or any part thereof has been removed, unless in a conspicuous place above the center upon the outside of every vessel, can or package from which any such milk is sold, the words "Skimmed milk" are distinctly painted in letters not less than one inch in length, shall be guilty of a misdemeanor and shall be punished by a fine not exceeding one hundred dollars or by imprisonment in the county jail or Detroit House of Correction not exceeding three months.

[Added by Act No. 219, P. A. 1889.]

72. (C. L., 11423) SEC. 12. If milk sold or offered for sale under the provisions of this act as pure milk, is shown upon analysis by weight to contain more than eighty-seven and fifty one-hundredths per centum of watery fluid, or to contain less than twelve and fifty one-hundredths of milk solids per centum, or less fat than three per centum, or if the specific gravity at 60 degrees Fahrenheit is not between 1 29-1000 to 1 33-1000, it shall be deemed to be adulterated. If milk sold or offered for sale under the provisions of this act as skimmed milk has a specific gravity at 60 degrees Fahrenheit less than 1,032 and greater than 1,037, it shall be deemed to be adulterated.

[Added by Act No. 219, P. A. 1889.]

73. (C. L., 11424) SEC. 13. Whenever any inspector of milk has reason to believe that any milk found by him is adulterated, he shall take specimens thereof and test the same with such instrument or instruments as are used for such purposes, and he shall make an analysis thereof, showing total solids, the percentage of butter, the percentage of water and the percentage of ash; and if the result of such test and analysis indicates that the milk has been adulterated or deprived of its cream or any part thereof, the same shall be prima facie evidence of such adulteration in a prosecution under this act.

[Added by Act No. 219, P. A. 1889.]

74. (C. L., 11425) SEC. 14. Any person who shall remove the cream

or any part thereof from milk to be sold as pure milk to any manufactory in which milk is used as a material in the process of production, and any person who shall, in any manner, adulterate such milk, either by the addition of water or otherwise, shall be guilty of a misdemeanor, and shall, for every such offense, be punished by a fine not exceeding one hundred dollars, or by imprisonment in the county jail or Detroit House of Correction not exceeding ninety days.

[Added by Act No. 219, P. A. 1889.]

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(Act No. 106, Public Acts, 1899.)

AN ACT in relation to the sale and delivery of milk.

*The People of the State of Michigan enact:*

75. SECTION 1. No person shall offer or expose for sale, sell, exchange or deliver, or have in his possession with intent to sell, exchange or deliver, any milk to which water, chemicals or preservatives, or any other foreign substance has been added. The term milk as used in this act shall include all skimmed milk, buttermilk, cream and milk in its natural state as drawn from the cow.

76. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglects or refuses to do any of the acts or things enjoined by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than one dollar nor more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

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## INSANITARY MILK AND CREAM.

[Act No. 222, Session Laws, 1913.]

AN ACT to prevent and punish the sale of unclean and insanitary cream and milk and the use thereof in the manufacture of food products and to prohibit unclean and insanitary conditions of creameries, cheese factories, ice cream factories and milk dealer's establishments or outfits and fixing standards of sanitary milk and cream, and to regulate the sale and transportation of the same.

*The People of the State of Michigan enact:*

77. SECTION 1. For the purpose of this act, the term "milk" shall mean the fresh, clean, lacteal secretion obtained by the complete milk-

ing of one or more healthy cows, properly fed and kept, excluding that obtained within eight days before and four days after calving, and contains not less than eight and one-half per cent of solids not fat, and not less than three per cent of milk fat; and the term "cream" shall mean that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean, and contains not less than eighteen per cent of milk fat. Milk which shall be drawn from cows that are kept in barns or stables which are not reasonably well lighted and ventilated, or that are kept in barns or stables that are filthy from an accumulation of animal feces and excreta or from any other cause, or milk which shall be drawn from cows which are themselves in a filthy condition; or milk kept or transported in dirty, rusty or open-seamed cans or other utensils; or milk that is stale, putrescent, or putrid; or milk to which has been added any unclean, or unwholesome foreign substance; or milk which has been kept exposed to foul or noxious air or gases in barns occupied by animals, or kept exposed in dirty, foul or unclean places or conditions, is hereby declared to be insanitary milk. Cream produced from any such aforesaid insanitary milk; or cream produced by the use of a cream separator, which separator had not been thoroughly washed, cleansed and scalded after previous use in the separation of cream from milk; or cream produced by the use of a cream separator placed or stationed in any unclean or filthy room or place or in any building containing a stable wherein are kept cattle or other animals, unless such cream separator is so separated and shielded by a partition from the stable portion of such building as to be free from all foul or noxious air or gases which issue or may issue from such place or stable; or cream that is stale, putrescent, or putrid; or cream that is kept or transported in dirty, rusty or open-seamed cans or other utensils; or cream which has been kept exposed to foul or noxious air or gases in barns occupied by animals, or in dirty, foul or unclean places or conditions, is hereby declared to be insanitary cream.

78. SEC. 2. No person shall by himself, his servant or agent, or as the servant or agent of any other person, or as the officer, servant or agent of any firm or corporation, sell or offer for sale, furnish or deliver, or have in possession or under his control with intent to sell or offer for sale, or furnish, or deliver to any person, firm or corporation as food for man, or to any creamery, cheese factory, milk condensing factory, or milk or cream dealer, any insanitary milk or any insanitary cream.

79. SEC. 3. No person shall by himself, his servant or agent, or as the servant or agent of any other person, or as the servant or agent of any firm or corporation, manufacture for sale any article of food for man from any insanitary milk or from any insanitary cream.

80. SEC. 4. All premises and utensils used in the handling of milk, cream, and by-products of milk, and all premises and utensils used in the preparation, manufacture, or sale, or offering for sale of any food product for man from milk or cream or the by-products of milk, which shall be kept in an unclean, filthy or noxious condition are hereby declared to be insanitary. It shall be unlawful for any person, firm, or corporation engaged in selling, or furnishing milk, cream, or any



by-products of milk, intended for use as food for man; and it shall be unlawful for any person, firm or corporation engaged in selling or furnishing milk, cream, or any by-products of milk, to any creamery, cheese factory, milk condensing factory, or to any place where such milk, cream, or by-products of milk are manufactured or prepared into a food product for man, and for sale as such; and it shall be unlawful for any milk dealer, or an employe of such milk dealer, or any person, firm or corporation, or the employe of such person, firm, or corporation, who operates a creamery, cheese factory, milk condensing factory, or who manufactures or prepares for sale any article of food for man from milk, cream, or by-product of milk, or who manufactures, re-works, or packs butter for sale as a food product, to maintain his premises and utensils in an insanitary condition.

81. SEC. 5. Any person, firm or corporation, not a common carrier who receives from a common carrier in cans, bottles or other vessels any milk, or cream, ice cream or other dairy product intended as food for man, which has been transported over any railroad or boat line or by other common carrier, when such cans, bottles or vessels are to be returned, shall cause the said cans, bottles, or other vessels to be thoroughly washed and cleansed before return shipment.

82. SEC. 6. Any person who by himself, his servant or agent, or as the servant or agent of any other person, or as the officer, servant or agent of any firm or corporation, who violates any provision of this act shall, upon conviction thereof, be punished by a fine of not more than one hundred dollars for each and every offense, or shall be imprisoned in the county jail not more than sixty days.

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### CONDENSED MILK LAW.

(Act No. 176, Session Laws, 1913.)

AN ACT to regulate the sale of condensed milk, and to provide for the labeling thereof so as to prevent fraud and deception.

*The People of the State of Michigan enact:*

83. SECTION 1. Every container of evaporated, concentrated or condensed whole milk, and every container of evaporated, concentrated or condensed skimmed milk, sold or offered for sale or had in possession or custody with intent to sell by any person, firm or corporation within this State, shall have plainly printed thereon in the English language, or attached thereto on some firmly affixed tag or label, a formula for extending the said evaporated, concentrated or condensed milk and said evaporated, concentrated or condensed skimmed milk, respectively, with water. The formula for the extension of said evaporated, concentrated or condensed whole milk shall be such that the resulting milk product shall not be below the Michigan standard of milk solids or fat for

whole milk, and shall be in the following form: By adding ..... parts of water to one part of the contents of this can a resulting milk product will be obtained which will not be below the legal standard for whole milk. The formula for the extension of said evaporated, concentrated or condensed skimmed milk shall be such that the resulting milk product shall not be below the Michigan standard of milk solids for skimmed milk, and shall be in the following form: By adding ..... parts of water to one part of the contents of this can a resulting milk product will be obtained which will not be below the legal standard for skimmed milk.

84. SEC. 2. Whoever, himself or by his servant or agent, or as the servant or agent of any person, firm or corporation, sells, exchanges or delivers, or has in his custody or possession with intent to sell, exchange or deliver any container of evaporated, concentrated or condensed milk, within this State, not marked or labeled in compliance with the provisions of this act, shall, for the offense, be punished by a fine of not more than one hundred dollars or by imprisonment for not less than three nor more than six months.

85. SEC. 3. The provisions of this act with reference to the labeling of containers of condensed, concentrated and evaporated skimmed milk shall take effect upon the first day of October, in the year nineteen hundred thirteen; the remaining provisions of this act shall take effect upon the first day of January in the year nineteen hundred fourteen.

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### OLEOMARGARINE.

(Act No. 63, Public Acts, 1913.)

AN ACT to regulate the manufacture, display, advertisement and sale of oleomargarine or imitation butter and to prevent fraud and deception therein and to provide penalties for violations thereof, and to repeal act number one hundred forty-seven of the Public Acts of eighteen hundred ninety-nine, entitled "An act in relation to the manufacture and sale of oleomargarine or imitation butter."

*The People of the State of Michigan enact:*

86. SECTION 1. No person shall sell, expose or offer for sale or exchange, or have in his possession with intent to sell or exchange, any oleomargarine or other substance made in imitation of butter, and which is intended to be used as a substitute for butter, unless each and every vessel, package, roll or parcel of such substance has distinctly and durably printed, stamped or stenciled thereon in black letters the true name of such substance, in ordinary bold faced capital letters, not less than five line pica in size; and also the name and address of the manufacturer, in ordinary bold faced letters, not less than pica in size.

87. SEC. 2. No person shall sell, exchange or deliver any oleomar-

garine or other substance made in imitation of butter, and which is intended to be used as a substitute for butter, unless he shall distinctly inform the purchaser by a verbal notice at the time of the sale that the same is a substitute for butter, and shall also deliver to the purchaser of each and every roll, package, or parcel of such oleomargarine or other substance, at the time of the delivery of the same, a separate and distinct label, on which is plainly and legibly printed in black ink in ordinary bold faced capital letters not less than five line pica in size, the true name of such substance and also the name and address of the manufacturer, in ordinary bold faced letters not less than pica in size.

88. SEC. 3. The proprietor or keeper of any store, hotel, restaurant, eating saloon, boarding house, or other place where oleomargarine is sold or furnished to persons paying for the same, shall have placed on the walls of every store or room where oleomargarine is sold or furnished a white placard on which is printed in black ink, in plain Roman letters of not less than three inches in length, and not less than two inches in width, the words "Oleomargarine sold or used here," and shall at all times keep the same exposed in such conspicuous place as to be readily seen by any and all persons entering such store, or other room or rooms.

89. SEC. 4. No person shall use in any way, in connection or association with the sale or exposure for sale or advertisement of any substance designed to be used as a substitute for butter, the word "butter," "creamery," or "dairy," or the name or representation of any breed of dairy cattle, or any combination of such word or words and representation, or any other words or symbols or combination thereof commonly used in the sale of butter.

90. SEC. 5. For the purpose of this act the word "butter" shall be understood to mean the food product usually known as butter, and which is made exclusively from milk or cream, or both, with or without common salt, and with or without additional coloring matter.

91. SEC. 6. For the purpose of this act certain manufactured substances, certain extracts and certain mixtures and compounds, including such mixtures and compounds with butter, shall be known and designated as "oleomargarine," namely: All substances heretofore known as oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine and neutral; all mixtures and compounds of oleomargarine, oleo, oleomargarine oil, butterine, lardine, suine and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard, lard oil, vegetable oil, butterine, lardine, suine and neutral; all lard extracts and tallow extracts; and all mixtures and compounds of tallow, beef fat, suet, lard, lard oil, vegetable oil, intestinal fat, and offal fat, made in imitation or semblance of butter, or when so made, calculated or intended to be sold or used as butter or for butter.

92. SEC. 7. Whoever violates any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or state house of correction and reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court, for each and every

offense. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

93. SEC. 8. Act number one hundred forty-seven of the Public Acts of eighteen hundred ninety-nine, is hereby repealed.

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(Act No. 22, Public Acts, 1901.)

AN ACT to prevent deception in the manufacture and sale of imitation butter.

*The People of the State of Michigan enact:*

94. SECTION 1. No person, by himself or his agents, or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleo-margarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter.

95. SEC. 2. Whoever violates any of the provisions of section one of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court, for each and every offense.

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### RENOVATED BUTTER.

(Act No. 243, Public Acts, 1903, as amended.)

AN ACT in relation to the manufacture and sale of renovated butter.

*The People of the State of Michigan enact:*

96. SECTION 1. No person, firm or corporation shall manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession with the intent to sell, exchange or deliver, any butter that is produced by taking original packing stock butter or other butter, or both, melting the same so that the butter fat can be drawn off or ex-

tracted, mixing the said butter fat with skimmed milk, or milk or cream, or other milk product, and reurning or reworking the said mixture; nor shall any person, firm or corporation manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession for any such purpose any butter which has been subjected to any process by which it is melted, clarified or refined, and made to resemble butter, and is commonly known as boiled, process or renovated butter, and which for the purpose of this act is hereby designated as "Renovated Butter," unless the same shall be branded or marked as provided in section two of this act.

97. SEC. 2. Whoever, himself or by his agent or as the servant or agent or another person, shall sell, expose for sale or have in his custody or possession with the intent to sell any renovated butter as defined in section one of this act, shall have the words "Renovated Butter" conspicuously stamped, labeled or marked in one or two lines and in plain Gothic letters, at least three-eighths of an inch square, so that the words cannot easily be defaced, upon two sides of each and every tub, firkin, box or package containing said renovated butter; or if such butter is exposed for sale uncovered, or not in a case or package, a placard containing said words in the same form as above described in this section shall be attached to the mass in such a manner as to be easily seen and read by the purchaser. When renovated butter is sold from such packages or otherwise at retail, in print, roll or other form, before being delivered to the purchaser it shall be wrapped in wrappers plainly stamped on the outside thereof with the words "Renovated Butter" printed or stamped thereon in one or two lines, and in plain Gothic letters at least three-eighths of an inch square, and such wrapper shall contain no other words or printing thereon, and said words "Renovated Butter" so stamped or printed on the said wrapper shall not be in any manner concealed, but shall be in plain view of the purchaser at the time of the purchase: Provided, If at any time the laws of the United States provide that butter manufactured as is described in this act, shall be labeled "Process Butter," then and in such case only shall such substitution be permitted and the labeling of said butter as "Process Butter" shall be deemed a compliance with this act.

[Am. by Act No. 119, P. A. 1909.]

98. SEC. 3. Whoever shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail or Michigan Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment, in the discretion of the court, for each and every offense.

99. SEC. 4. Act number two hundred fifty-four of the public acts of eighteen hundred ninety-nine, entitled "An act to regulate the sale of butter produced by taking original packing stock and other butter and melting the same so that the butter oil can be drawn off, mixed with skimmed milk or other material, and by emulsion or other process produce butter, and butter produced by any similar process and commonly known as "process" butter; providing for the enforcement thereof, and punishment for the violation of the same." is hereby repealed.

## BUTTER AND CREAM STANDARDS.

(Act No. 244, Public Acts, 1913.)

AN ACT to regulate the sale of butter and cream in the State of Michigan, and to prescribe a penalty for the violation of this act.

*The People of the State of Michigan enact:*

100. SECTION 1. No person shall offer or expose for sale, have in his possession with intent to sell, or sell as butter any product which contains less than eighty per cent of milk fat, and which is not made exclusively from milk or cream, or both, with or without common salt and with or without additional coloring matter.

101. SEC. 2. No person shall offer or expose for sale, have in his possession with intent to sell, or sell as cream any product which contains less than eighteen per cent of milk fat, and which is not that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, and which is not clean: Provided, That the provisions of this act shall not be deemed to apply to any person not a manufacturer or producer of butter and cream, who has bought the products mentioned in this act for resale, and when found to be under the standard prescribed by this act, shall furnish information from whom his products were received.

102. SEC. 3. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and where no specific penalty is prescribed by this act shall be punished by a fine of not less than twenty-five nor more than one hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

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CANDY.

(Act No. 207, Public Acts, 1911.)

AN ACT to prevent the adulteration of candies and to regulate the sale thereof.

*The People of the State of Michigan enact:*

103. SECTION 1. No person, firm or corporation shall manufacture for sale, offer or expose for sale, sell, exchange or deliver, or have in his possession with the intent to sell, exchange or deliver, any candies or confectioneries adulterated by the admixture of terra alba, barytes talc or other earthy or mineral substances, or any poisonous colors, fla-

vors or extracts, or other deleterious ingredients detrimental to health.

104. SEC. 2. Whoever violates any of the provisions of section one of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than fifty dollars nor more than one thousand dollars and the costs of prosecution, or by imprisonment in the county jail or State House of Correction and Reformatory at Ionia for not less than six-months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

105. SEC. 3. All acts and parts of acts inconsistent with this act are hereby repealed.

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### PEPPER.

(Act No. 180, Public Acts, 1901.)

AN ACT to provide for the manufacture and sale of black pepper in this State and to provide a penalty for the violation of the provisions of this act.

*The People of the State of Michigan enact:*

106. SECTION 1. Within this State no person, firm or corporation shall manufacture, offer or expose for sale, keep in possession with intent to sell, or sell any ground or whole black pepper containing any foreign substance whatever. All black pepper shall contain not more than six and one-half per cent ash or mineral matter; and shall contain not less than twenty-five per cent starch as determined by the diastase method; and shall contain not less than six-tenths of one per cent nor more than one and three-fourths per cent of volatile ether extract; and shall contain not more than ten per cent nor less than six and one-half per cent of non-volatile ether extract; and shall contain not more than sixteen per cent of crude fibre.

107. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglects or refuses to do any of the acts or things enjoined by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than five hundred dollars and the costs of the prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment, in the discretion of the court.

## CORN SYRUP.

(Act No. 123, Public Acts, 1903.)

AN ACT in relation to the sale of corn syrup.

*The People of the State of Michigan enact:*

108. SECTION 1. No person shall offer or expose for sale, have in his possession with intent to sell, or sell, any cane syrup, beet syrup, or glucose, unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any cane syrup or beet syrup mixed with glucose unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled "Glucose Mixture" or "Corn Syrup," in plain gothic type not less than three-eighths of an inch square, with the name and percentage by weight of each ingredient contained therein plainly stamped, branded or stenciled on each package in plain Gothic letters not less than one-quarter of an inch square. Each and every package of syrup either simple or mixed shall bear the name and address of the manufacturer. Such mixtures or syrups shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance; and all brands or labels required shall be an inseparable part of the general or distinguishing label, and that the general or distinguishing label shall be that principal and conspicuous sign under which it is sold.

109. SEC. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act, or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

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PRESERVATIVES.

(Act No. 7, Public Acts, 1905.)

AN ACT in relation to the use of preservatives in food products.

*The People of the State of Michigan enact:*

110. SECTION 1. No person, firm or corporation shall manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any food product containing benzoic acid or benzoate of sodium,



or any other harmless preservative, unless each and every package containing the same shall, in the condition in which it is exposed for sale, be distinctly, conspicuously, and legibly branded, labeled or marked, in plain English letters, with the words "Prepared with" followed by the proper English name of the preservative used: Provided, That nothing in this act shall be construed to prohibit or regulate, by branding or otherwise, the use as a preservative of common salt, syrup, sugar, salt petre, spices, alcohol, vinegar, or wood smoke: And provided further, That the provisions of this act shall not apply to dairy products.

111. Sec. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

This act is ordered to take immediate effect.

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### MAPLE SUGAR AND SYRUP.

(Act No. 170, Public Acts, 1893.)

AN ACT to prohibit the adulteration of maple sugar, maple molasses and maple syrup.

*The People of the State of Michigan enact:*

112. (5007) SECTION 1. That it shall be unlawful for any person, dealer, firm, manufacturer or corporation to manufacture and sell, or offer for sale, any maple sugar, maple molasses or maple syrup that is in anywise adulterated with common sugar, beet sugar, glucose or any other foreign substance without distinctly marking, stamping or labeling the article or the package containing the same with the true and appropriate name of such article and the percentage in which common sugar, beet sugar, glucose or any other foreign substance enters into the composition of the same.

113. (5008) SEC. 2. Any person, dealer, firm, manufacturer or corporation who shall sell or offer for sale, and who shall falsely stamp or misrepresent or label any cans, jugs, jars, or packages containing maple molasses or maple syrup, and any person, dealer, firm, manufacturer or corporation who shall sell or offer for sale any maple sugar that is in anywise adulterated, who falsely misrepresents or labels or stamps the same, or knowingly permits such misrepresentation or false stamping or labeling, shall be deemed guilty of a misdemeanor and punished with a fine not less than fifty dollars, in case of vender, and in the case of manufacturers and those falsely or fraudulently stamping or

labeling or misrepresenting such goods, shall be fined not less than five hundred dollars, nor more than one thousand dollars, and it shall be the duty of any board of health in this State, or food commissioner, should there be one, cognizant of any violation of this act to prosecute any person, dealer, firm, manufacturer, or corporation, which it has reason to believe has violated any of the provisions of this act, and after deducting the costs of trial and conviction the balance of fine recovered, one-half be placed in the township treasury wherein the conviction is made, the balance placed to the general fund of the county. Any (person) persons, dealer, firm, manufacturer or corporation who shall knowingly sell or offer for sale any cans, jugs, jars, or packages containing maple molasses, maple syrup, or maple sugar, that is in anywise adulterated, shall be deemed guilty of a misdemeanor and punished by a fine of not more than one hundred dollars, or by imprisonment in the county jail for a period not to exceed three months, or by both such fine and imprisonment, at the discretion of the court.

114. (5009) SEC. 3. Any person, dealer, firm, manufacturer, or corporation, who shall falsely stamp or misrepresent or label any cans, jugs, jars, or packages, containing maple molasses, or maple syrup, or maple sugar, that is in anywise adulterated, or knowingly permits such (misrepresentation) misrepresentations or false stamping or labeling, shall be deemed guilty of a misdemeanor, and punished by a fine, not more than five hundred dollars, or by imprisonment in the county jail for a period of not more than one year, or by both such fine or imprisonment, in the discretion of the court.

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### ICE CREAM.

(Act No. 70, Public Acts, 1909.)

AN ACT to regulate the manufacture and sale of ice cream within the limits of the State of Michigan.

*The People of the State of Michigan enact:*

115. SECTION 1. No person, firm or corporation shall manufacture for sale, keep for sale, sell, barter, exchange or deal in ice cream which shall contain any substance other than milk, cream, eggs, sugar, and some neutral flavoring gelatin or vegetable gums or which contain other than the required amount of milk fat as hereinafter provided.

116. SEC. 2. No person, firm or corporation shall manufacture for sale, keep for sale, sell, barter, or deal in ice cream adulterated within the meaning of this act.

117. SEC. 3. Ice cream shall be deemed to be adulterated within the meaning of this act;

First, If it shall contain boric acid, formaldehyde, saccharin, or any other added substance or compound that is deleterious to health;

Second, If it shall contain salts of copper, iron oxide, ocras or any

coloring substance deleterious to health: Provided, That this paragraph shall not be construed to prohibit the use of harmless coloring matter in ice cream when not used for fraudulent purposes;

Third, If it shall contain any deleterious flavoring matter, or flavoring matter not true to name;

Fourth, If it be an imitation of, or offered for sale under the name of another article;

Fifth, If it contains less than ten per centum milk fat, except where fruit or nuts are used for the purpose of flavoring when it shall not contain less than eight per centum milk fat. Nothing in this act shall be construed to prohibit the use of not to exceed seven-tenths of one per centum of pure gelatin, gum tragacanth or other vegetable gums.

[Am. by Act No. 224, P. A. 1913.]

118. SEC. 4. The standard of ice cream in this State and for the purpose of this act is hereby declared to be a frozen product made from milk, cream, eggs and sugar with or without a natural flavoring and the gums mentioned in the preceding section and contains not less than ten per cent of milk fat. Fruit ice cream is a frozen product made from milk, cream, eggs and sugar and sound, clean, mature fruits, and contains not less than eight per cent of milk fat. Nut ice cream is a frozen product made from milk, cream, eggs, sugar and sound, non-rancid nuts, and contains not less than eight per cent of milk fat.

[Am. by Act No. 224, P. A. 1913.]

119. SEC. 5. It shall not be lawful for any person, firm or corporation to sell, offer for sale, expose for sale, or have in possession with intent to sell, any ice cream in any container which is falsely labeled or branded as to the name of the manufacturer thereof or to misrepresent in any way the place of manufacture of ice cream or the manufacturer thereof.

120. SEC. 6. Each person, firm or corporation engaged in the manufacture of ice cream as a business within this State, after this act shall take effect, shall file with the Dairy and Food Commissioner an application for a license accompanied with a fee of five dollars, and upon receipt of such application the Dairy and Food Commissioner shall issue to the person, firm or corporation making such application a license to manufacture ice cream, as provided in this act, which license shall run for one year from the date of the application, and shall be renewed annually thereafter.

The money so collected by the Dairy and Food Commissioner shall be paid into the State treasury and be used to help defray the expenses of the office of the Dairy and Food Commissioner in addition to the annual appropriation therefor: Provided, That this section shall not apply except in cities of more than three thousand inhabitants, by the last United States census, to any person, firm or corporation manufacturing and selling ice cream by the dish direct to the consumer.

121. SEC. 7. Any person, firm or corporation who shall violate any of the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction shall be fined not less than twenty-five dollars nor more

than one hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

122. SEC. 8. The Dairy and Food Commissioner shall be charged with the enforcement of the provisions of this act.

This act is ordered to take immediate effect.

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## MILL PRODUCTS.

(Act No. 208, Public Acts, 1909.)

AN ACT to establish uniform weights and measures of the various products of cereals in barrels or the fractional parts thereof when packed for sale or exposed for sale to firms or persons within this state, and to provide for the marking of the weight on packages of the products of such cereals.

*The People of the State of Michigan enact:*

123. SECTION 1. When mill products of wheat, corn, rye or buckwheat, known as flour, grits, meal or compounds of the same are placed or packed in barrels, fractional parts of a barrel or sacks to be sold or billed to any person or persons within this State, the standard weight or measure of a barrel or the fractional part thereof shall be as follows, viz.:

One hundred ninety-six pounds for a barrel;

Ninety-eight pounds for one-half barrel;

Forty-nine pounds for one-quarter barrel;

Twenty-four and one-half pounds for one-eighth barrel;

Twelve and one-fourth pounds for one-sixteenth barrel;

Six and one-eighth pounds for one thirty-second barrel.

The full and correct weights as herein established shall be placed in said barrel or fractional part thereof by the manufacturer, company, dealer, person or persons filling the same, and the weights as herein established shall be the legal weights in this State for such packages when they are bought or sold, offered or exposed for sale, or in possession with intent to sell, or sold and delivered, ordered or billed.

124. SEC. 2. No person or persons shall sell, offer or expose for sale in this State by the barrel, or by the fractional parts of a barrel as herein established, any of the mill products specified in section one hereof, unless the barrel or fractional part of such barrel shall contain the full weight of such mill product as is provided for in section one hereof.

125. SEC. 3. Before any package containing the mill products or compounds of such mill products specified in section one of this act shall be sold or offered or exposed for sale in this State, the number of pounds contained therein shall be plainly printed or stamped on the

face label in plain English letters and numbers not less than one-half inch high. When such packages are sold as one-half, one-quarter, one-eighth, one-sixteenth or one-thirty-second of a barrel they shall be so marked in addition to the number of pounds marked thereon as herein provided.

126. SEC. 4. No manufacturer, company, dealer or person shall abstract any part of the mill products from the standard package or fractional parts named in section one, and sell such package as a barrel or fractional part of a barrel as defined in section one.

127. SEC. 5. Any manufacturer, company, dealer, person or persons who shall knowingly sell, offer or expose for sale or for distribution in this State any package containing mill products of the cereals enumerated in section one which are stamped or labeled with a greater number of pounds than such package actually contains, or who shall put up or sell in this State any of the mill products of the above named cereals in a manner contrary to the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than five hundred dollars and the costs of prosecution, or by imprisonment in the county jail or the Michigan Reformatory at Ionia for not less than ninety days nor more than one year or by both such fine and imprisonment in the discretion of the court for each and every offense: Provided, however, That nothing in this act shall be construed to cover or affect sales or shipments made to any manufacturer, company, dealer, person or persons outside of this State and not intended for sale or shipment back into this State.

128. SEC. 6. It shall be the duty of the Dairy and Food Commissioner to investigate all complaints of violations of this act, and to take all steps necessary to its enforcement. It shall be the duty of all prosecuting officers of this State to prosecute to completion all suits brought under the provisions of this act upon complaint of said commissioner or any person.

129. SEC. 7. This act shall take effect and be operative from and after January first, nineteen hundred ten.

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## LINSEED OR FLAXSEED OIL.

(Act No. 110, Public Acts, 1909.)

AN ACT to prevent the adulteration of linseed oil or flaxseed oil and to prevent fraud in the sale thereof and in the sale of compounds thereof, and to repeal all acts in conflict herewith.

*The People of the State of Michigan enact:*

130. SECTION 1. No person, firm or corporation, by himself, his servant, or his agent, or as the servant or agent of any other person, firm or corporation, shall manufacture or mix for sale, sell, offer or expose

for sale, or have in his possession with intent to sell in this State, under the name of raw linseed oil or raw flaxseed oil, any substance which is not wholly the product obtained from well cleaned flaxseed or linseed, and unless the aforesaid oil also fulfills the requirements of the nineteen hundred edition of the Pharmacopoeia of the United States, which follows:

1. Specific gravity 0.925 to 0.935 at 25 deg. C. (77 deg. F.) It does not congeal at temperatures above 20 deg. C. (—4 deg. F.) It is soluble in about ten parts of absolute alcohol and in all proportions in ether, chloroform, petroleum, benzine, carbon, disulphide and oil of turpentine. It should not more than slightly redden blue litmus paper, previously moistened with alcohol (limit of free acid). The oil should be completely saponifiable with alcoholic potassium hydroxide T. S. and the resulting soap should be completely soluble in water without leaving an oily residue, (absence of mineral oils and rosin oils). If 2 CC. of the oil be warmed and shaken in a test tube with an equal volume of glacial acetic acid, and if to this mixture, after cooling, one drop of sulphuric acid be added, a greenish color should be produced. (A violet color under these circumstances indicates the presence of rosin oils). Linseed oil saponified by alcoholic potassium hydroxide T. S. should show a saponification value of from 187 to 195. If 0.15 CC. of linseed oil be dissolved in 10 CC. of chloroform in a 250 CC. flask at 25 CC. of a mixture of equal volume of alcoholic iodine T. S. and alcoholic mercuric chloride T. S. added, and if, after standing for sixteen hours, protected from the light, 20 CC. potassium iodide T. S. be introduced and the mixture diluted with 50 CC. of water, on titrating the excess of iodine with tenth normal sodium thiosulphate V. S. an iodine value of not less than 170 should be obtained. No person, firm or corporation, by himself, his servant or his agent, or as the servant or agent of any other person, firm or corporation, shall manufacture or mix for sale, sell, offer or expose for sale or have in his possession with intent to sell in this State, any substance as boiled linseed oil or as boiled flaxseed oil, unless the same shall have been prepared by heating raw linseed oil, as defined above: Provided, That if drier is used in said boiled linseed oil or boiled flaxseed oil, the same shall have been prepared by incorporating said drier with raw linseed oil, as defined above, at a temperature of not less than 225 deg. Fahrenheit, and furthermore contains not less than 96 per cent of linseed oil; and for the purpose of this act it shall also be deemed a violation thereof if said boiled linseed oil prepared either with or without drier does not conform to the following requirements: 1. Its specific gravity at 60 deg. Fahrenheit must be not less than 0.935 and not greater than 0.945; 2. Its saponification value (Koettstorfer figure) must not be less than 186; 3. Its iodine number (Huebl's method) must be not less than 160; 4. Its acid value must not exceed 10; 5. The volatile matter expelled at 212 deg. Fahrenheit must not exceed one-half of one per cent; 6. No mineral oil shall be present and the amount of unsaponifiable matter as determined by standard methods shall not exceed 2.5 per cent; 7. The film left after flowing the oil over glass and allowing it to drain in a vertical or nearly vertical position must dry free from tackiness in not to exceed twenty hours, at a temperature of about

70 deg. Fahrenheit. Linseed oil or flaxseed oil which does not conform to the foregoing requirements shall be deemed to be adulterated within the meaning of this act.

131. SEC. 2. No person, firm or corporation, either by himself or another, shall sell, offer or expose for sale, or have in his possession with intent to sell in this State any linseed oil or flaxseed oil, except under its true name, and unless each barrel, keg or can of such oil has plainly and durably painted, stamped, stenciled, labeled or marked thereon the true name of such oil in ordinary bold-faced capital letters, not less than five lines pica in size, together with the name and address of the manufacturer, jobber or dealer: Provided, That if the contents of the package be less than twenty-five gallons, the type shall not be less than two lines pica in size. Proof that any person, firm or corporation has or had possession of any oil or compound which is adulterated or misbranded within the meaning of this act shall be prima facie evidence that the possession thereof is in violation of this act.

132. SEC. 3. Linseed oil compounds or flaxseed oil compounds designed to take the place of raw or boiled linseed oil or raw or boiled flaxseed oil as defined in section one of this act, whether sold, offered or exposed for sale under invented proprietary names or titles or not, shall bear conspicuously upon the containing vessel, in capital letters not less than five line pica in size, the word "Compound," followed immediately with the true distinctive names of the actual ingredients in the order of their greater preponderance, in the English language, in plain legible type of the same size, not less than two lines pica in size, in continuous list with no intervening matter of any kind, and shall also bear the name and address of the manufacturer, jobber or dealer. Any oil or compounds required to be branded by the provisions of this act and not complying with sections two and three shall be deemed to be misbranded within the meaning of this act.

133. SEC. 4. It is hereby made a duty of the State Dairy and Food Commissioner to enforce the provisions of this act.

134. SEC. 5. The State Dairy and Food Commissioner, his agents, assistants, inspectors, chemists or others appointed by him, shall have full rights of ingress and egress to the premises occupied by parties who manufacture, sell or deal in linseed oil or flaxseed oil, or linseed oil compounds or flaxseed oil compounds, and also shall have power and authority to open any tank, barrel, can or other vessel believed to contain such oil and inspect the contents thereof and to take therefrom samples for analysis. In case any sample so taken shall prove on analysis to be adulterated or misbranded in violation of the provisions of this act it shall be the duty of the State Dairy and Food Commissioner to proceed against the offender as herein provided. No person shall obstruct the State Dairy and Food Commissioner or any of his assistants by refusing entrance to any place which he desires to enter in the discharge of his official duty as provided in this act, nor shall any person refuse to deliver to him a sample of oil when same is requested and when the value thereof is tendered.

135. SEC. 6. Any person, firm or corporation convicted of violating any of the provisions of the foregoing act shall, for the first offense be punished by a fine in any sum not less than twenty-five dollars and

not more than one hundred dollars or by imprisonment in the county jail not exceeding thirty days, or by both such fine and imprisonment in the discretion of the court; and for the second and each subsequent offense by a fine of not less than fifty dollars and not more than two hundred dollars or by imprisonment in the county jail not exceeding one year, or both in the discretion of the court; or the fine above may be sued for and recovered before any justice of the peace or any court of competent jurisdiction, in the county where the offense shall have been committed, at the instance of the State Dairy and Food Commissioner or any other person in the name of the people of the State of Michigan as plaintiff and shall be recovered in an action of debt.

136. SEC. 7. All acts and parts of acts inconsistent with this act are hereby repealed.

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## DRUGS.

(Act No. 146, Public Acts, 1909.)

AN ACT to prohibit and prevent adulteration, misbranding, fraud and deception in the manufacture and sale of drugs and drug products in the State of Michigan, and to provide for the enforcement thereof.

*The People of the State of Michigan enact:*

137. SECTION 1. No person shall within this State manufacture for sale, have in his possession with intent to sell, offer or expose for sale, or sell, any drug or drug product which is adulterated or misbranded within the meaning of this act.

138. SEC. 2. The term "drug" as used in this act shall include all medicines and preparations recognized in the United States Pharmacopoeia or National formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease of either man or other animals.

139. SEC. 3. An article shall be deemed to be adulterated within the meaning of this act.

First, If, when it is sold under or by a name recognized in the United States Pharmacopoeia or National Formulary, it differs from the standard of strength, quality or purity as determined by the test laid down in the United States Pharmacopoeia or National Formulary official at the time of investigation: Provided, That no drug defined in the United States Pharmacopoeia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the principal label of the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopoeia or National Formulary;

Second, If its strength or purity fall below the professed standard or quality under which it is sold.



140. Sec. 4. An article shall be deemed to be misbranded within the meaning of the act:

First, If it is an imitation of, or offered for sale under the name of another article;

Second, If the contents of the package as originally put up shall have been removed in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, antipyrin, opium, morphine, codeine, heroin, cocaine, alpha or beta eucaïne, chloroform, cannabis indica, chloral hydrate or acetanilide, or any derivative or preparation of any such substances, contained therein: Provided, That nothing herein shall be construed to apply to the dispensing of prescriptions written by regularly licensed practicing physicians, veterinary surgeons and dentists, and kept on file by the dispensing pharmacist, nor to such drugs as are recognized in the United States Pharmacopoeia and National Formulary, and which are sold under the name by which they are so recognized;

Third, If the package containing it or its label shall bear any statement, design or device regarding the ingredients or the substances, contained therein, which statement, design or device shall be false or misleading in any particular, and to any drug or drug product which is falsely branded as to the state, territory or country in which it is manufactured or produced.

141. SEC. 5. The president of the board of pharmacy, the president of the State Board of Health and the Dairy and Food Commissioner shall jointly make such rules and regulations as may be necessary for the enforcement of this act.

142. SEC. 6. It shall be the duty of the Dairy and Food Commissioner to investigate all complaints of violations of this act and take all steps necessary to its enforcement; and to this end he shall appoint two drug inspectors who shall be registered pharmacists, and one competent analyst; which inspectors and analyst shall hold office at the pleasure of said commissioner, and until others are appointed; and the said Dairy and Food Commissioner or his deputy and the said drug inspectors or any of them shall in a lawful manner inquire into the drug products which are manufactured or sold or exposed or offered for sale in this State, and may in a lawful manner procure samples of the same for analysis; and the said Dairy and Food Commissioner, his deputy, or said drug inspectors or any of them, shall have power to enter into any factory, store, salesroom, drug store or laboratory or place where he has reason to believe drug products are made, stored, sold or offered for sale, and open any cask, jar, bottle or package containing, or supposed to contain any drug product, and take therefrom samples for analysis. The person making such inspection shall take such sample of such article or product in the presence of at least one witness, and he shall, in the presence of said witness mark or seal such sample and shall tender at the time of taking to the manufacturer or vendor of such product or to the person having the custody of the same the value thereof and a statement in writing for the taking of such sample. The said Dairy and Food Commissioner shall direct said analyst to make due and careful examination of such sample and

report to him the result of such analysis and if the same is found to be adulterated or misbranded within the provisions of this act it shall be the duty of said commissioner his deputy or any drug inspector assigned to such duty to make complaint against the manufacturer or vendor thereof in the proper county and furnish all evidence thereof to obtain a conviction of the offense charged, and in no case shall the Dairy and Food Commissioner or drug inspector making such complaint be required to furnish security for costs in any action instituted by him having for its object the enforcement of this act: Provided, Nothing herein contained shall be held to prohibit or prevent other inspectors or chemists connected with the office of the Dairy and Food Commissioner from performing any of the duties herein imposed upon the said drug inspectors and analyst, whenever in the opinion of said Dairy and Food Commissioner the work of his office can be expedited thereby.

143. SEC. 7. In construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent or other person acting for or employed by any corporation, company, society or association within the scope of his employment or office, shall, in every case, be also deemed to be the act omission or failure of such corporation, company, society or association, as well as that of the person: Provided, That no dealer shall be prosecuted under the provisions of this act when he can establish a guaranty in accordance with the provisions of the national food and drug act, June thirtieth, nineteen hundred six, or a guaranty signed by the wholesaler, jobber, manufacturer or other parties residing in this State, from whom he purchased such article, to the effect that the same is not adulterated nor misbranded within the meaning of this act. Said guaranty to afford protection shall contain the name and address of the party or parties making the sale of such article to such dealer, and in such case, if such guaranty was given in this State, said party or parties shall be amenable to the prosecution, fines and other penalties which would attach in due course to the dealer under the provisions of this act: Provided, however, That said guaranty shall not afford protection to the vendor in any case if said product is adulterated or misbranded within the meaning of this act, and if said vendor shall have been previously notified in writing by the Dairy and Food Commissioner to that effect: Provided further, That in no case shall the Dairy and Food Commissioner serve such notice upon any vendor of any such product until said Dairy and Food Commissioner shall have notified the manufacturer or jobber of any such product of the findings of the State Analyst with reference to such product; such notification to such manufacturer or jobber shall be in writing and shall be mailed ten days previous to any notice sent to any vendor in accordance with this section.

144. SEC. 8. Nothing in this act shall affect any drug product manufactured in this State for export to any foreign country or for sale in any other state, when such drug product is not adulterated or misbranded within the meaning of the laws of such foreign country or state; but if said article shall be in fact sold or offered for sale for use or consumption within this State, then such article shall not be exempt from the operation of any of the provisions of this act.



145. SEC. 9. It shall be the duty of each prosecuting attorney, when called upon by the said Dairy and Food Commissioner, or by any person by him authorized as aforesaid, to render any legal assistance in his power in proceedings under the provisions of this act or any subsequent act relative to the adulteration or misbranding of drug products.

146. SEC. 10. Whoever shall do any of the acts or things prohibited, or wilfully neglect or refuse to do any of the acts or things enjoined by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than twenty-five nor more than five hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both fine and imprisonment in the discretion of the court.

147. SEC. 11. The sum of six thousand dollars is hereby appropriated for the fiscal year ending June thirtieth, nineteen hundred eleven, and for each fiscal year thereafter there is hereby appropriated the sum of six thousand dollars. Out of the amounts appropriated by this act shall be paid all salaries and expenses provided for herein.

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## TURPENTINE.

(Act No. 175, Public Acts, 1911.)

AN ACT regulating the sale of turpentine and providing penalties for the violation of this act.

*The People of the State of Michigan enact:*

148. SECTION 1. No person, firm or corporation shall manufacture, mix for sale, sell or offer for sale for other than medical purposes, under the name of turpentine or under a name composed of a part or parts of the word turpentine, or spirits of turpentine, any article which is not wholly distilled from resin, turpentine gum or scrape from pine trees and unmixed and unadulterated with oil, benzine or other foreign substance of any kind whatsoever, unless the package containing the same shall be stenciled or marked with letters not less than one inch square and one-fourth inch apart "adulterated turpentine," except turpentine produced from turpentine gum extracted wholly from pine wood, which turpentine is known as "wood turpentine" must be stenciled or marked "wood turpentine" with letters not less than one inch square and one-fourth inch apart. When such wood turpentine is mixed and adulterated with oil, benzine or other foreign substances of any kind whatsoever, the container shall be stenciled or marked "adulterated wood turpentine" with letters not less than one inch square and one-fourth inch apart. When wood turpentine is mixed with turpentine distilled from resin, turpentine gum, or scrape from pine trees, in any quantity whatsoever, the container shall be stenciled or marked "wood turpen-

tine" with letters not less than one inch square and one-fourth inch apart: Provided, That if the contents of the package be less than twenty-five gallons, the type shall not be less than two lines pica in size. Nothing herein contained shall be construed to prohibit the manufacture or sale of any compound or imitation providing the container shall be plainly marked and the purchaser notified as aforesaid.

[Am. by Act No. 372, P. A. 1913.]

149. SEC. 2. The Dairy and Food Commissioner of Michigan shall enforce the provisions of this chapter and the penal statutes relating thereto, and such commissioner, his assistants, experts, chemists and agents shall have access and ingress to the places of business, stores and buildings used for the sale of turpentine, and may open any package, can or jar or other receptacle containing any turpentine that may be manufactured, sold or offered for sale in violation of this statute. The inspectors, assistants or chemists appointed by such commissioner shall perform like duties and have like authority under this chapter and the penal statutes relating thereto as is provided by law in other cases. Such commissioner shall publish bulletins from time to time giving the results of the inspections and analyses with such information as he deems suitable.

150. SEC. 3. Whosoever violates any provision of law relating to the labeling, marking or stenciling of turpentine or wood turpentine by manufacturers or distributors thereof, shall be fined not more than fifty dollars for the first offense, and for each subsequent offense shall be fined not less than fifty dollars nor more than one hundred dollars, or imprisoned not less than thirty days nor more than one hundred days or both.

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### BABCOCK TEST.

(Act No. 280, Public Acts, 1907.)

AN ACT to regulate the sampling and testing of milk and cream and the use of the Babcock test and to make the violation of any provision hereof a misdemeanor.

*The People of the State of Michigan enact:*

151. SECTION 1. In taking samples of milk or cream from any milk can, cream can or any container of milk or cream, the contents of such milk can, cream can, or container of milk and cream shall first be thoroughly mixed either by stirring or otherwise and the sample shall be taken immediately after mixing, or by any other method which gives a representative average sample of the contents, and it is hereby made a misdemeanor to take samples by any method which does not give a representative average sample where milk or cream is bought or

sold, and where the value of said milk or cream is determined by the butter fat contained in the same by the Babcock test.

152. SEC. 2. In the use of the Babcock test, the standard milk measures or pipettes shall have a capacity of 17.6 cubic centimeters at sixty degrees Fahrenheit and the standard test tubes or bottles for milk shall have a capacity of two cubic centimeters for each ten per cent, marked on the necks thereof; cream shall be tested by weight and the standard unit for testing shall be 18 grams, and it is hereby made a misdemeanor to use any other standards of milk or cream measure where milk or cream is purchased by or furnished to creameries or cheese factories, condensed milk factories, milk depots, or any other place where the value of said milk or cream is determined by the per cent of butter fat contained in the same by the Babcock test.

153. SEC. 3. It shall be unlawful for the owner, manager, agent or any employe of a cheese factory, creamery, condensed milk factory or milk depot or other place where milk or cream is tested for quality or value to falsely manipulate or under-read or over-read the Babcock test, or make settlements on any other basis than the correct reading of the Babcock test or any other contrivance used for determining the quality or value of milk or cream where the value of said milk or cream is determined by the per cent of butter fat contained in the same or to make any false determination by the Babcock test or otherwise.

154. SEC. 4. Whoever shall violate any of the provisions of this act shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than ten dollars nor more than fifty dollars for each and every offense or be imprisoned in the county jail not less than ten days nor more than thirty days.

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## SAUSAGE.

(Act No. 151, Public Acts, 1913.)

AN ACT providing for the protection of the public health and the prevention of fraud and deception, by prohibiting the sale, the offering for sale or exposing for sale or the having in possession with intent to sell, of adulterated or deleterious sausage; defining sausage; and prescribing the penalty for the violation hereof.

*The People of the State of Michigan enact:*

155. SECTION 1. It shall be unlawful for any person or persons, by himself, herself or themselves, or by his, her or their agents, servants or employes, to sell, offer for sale, expose for sale, or have in possession with intent to sell, sausage that is adulterated within the meaning of this act. Sausage when used in this act shall be deemed to include Bologna, Wiene-wurst and Frankforts.

156. SEC. 2. For the purpose of this act, sausage or sausage meat

shall be held to be a comminuted meat from neat cattle or swine, or a mixture of such meats, either fresh, salted, pickled or smoked, with added salt and spices, and with or without the addition of edible animal fat, blood and sugar, or subsequent smoking. It shall contain no larger amount of water than the meats from which it is prepared contain when in their fresh condition.

157. SEC. 3. For the purpose of this act, sausage shall be deemed to be adulterated:

First, If it contains added water in excess of the quantity required to bring the amount up to that which the meats from which it is prepared contain immediately after slaughter;

Second, If it contains any cereal or vegetable flour;

Third, If it contains any coal-tar dye, boric acid or borates, sulphites, sulphur dioxide, sulphurous acid, or any other substances injurious or deleterious to health;

Fourth, If it contains any diseased, contaminated, filthy or decomposed substance; or is manufactured, in whole or in part, from a diseased, contaminated, filthy or decomposed substance, or a substance produced, stored, transported or kept in a way or manner that would render the article diseased, contaminated or unwholesome; or if it is any product of a diseased animal, or the product of any animal which has died otherwise than by slaughter. Nothing in this act shall be construed as prohibiting the sale of sausage which when properly labeled shall conform to the following standard: Sausage shall not contain cereal in excess of two per cent. When cereal is added its presence shall be noted on the label or on the product. That water or ice shall not be added to it except for the purpose of facilitating grinding, chopping and mixing, in which case the added water or ice shall not exceed three per cent except as provided in the following paragraph. Sausages of the class which are cooked or smoked, such as Frankfort style, Vienna style and Bologna style, may contain added water in excess of three per cent, but not in excess of amount sufficient to make the sausage palatable. When water in excess of three per cent is added to this class of sausage, the statement "Sausage, water and cereal" shall appear on the label or on the product, but when no cereal is added, the addition of water need not be stated.

158. SEC. 4. Any person who shall violate any of the provisions of this act shall be guilty of a misdemeanor, and upon conviction thereof shall be sentenced to pay a fine of not less than one hundred dollars, nor more than two hundred dollars, or to undergo an imprisonment of not less than thirty days, nor more than sixty days, or both or either, in the discretion of the court.

159. SEC. 5. The dairy and food commissioner shall be charged with the enforcement of the provisions of this act.

## WEIGHTS AND MEASURES.

(Act No. 168, Public Acts, 1913.)

AN ACT to provide for a state superintendent of weights and measures, state, county and city sealers and inspection of weights and measures, prescribing their powers and duties, providing penalties for fraud and deception in the use of false weights and measures and confiscation thereof, and repealing sections four thousand eight hundred eighty-two to four thousand eight hundred ninety-seven inclusive of the Compiled Laws of eighteen hundred ninety-seven.

*The People of the State of Michigan enact:*

160. SECTION 1. The weights and measures received from the United States under a resolution of congress approved June fourteen, eighteen hundred thirty-six and such new weights and measures as shall be received from the United States as standard weights and measures in addition thereto or in renewal thereof, and such as shall be supplied by the state in conformity therewith and certified by the national bureau of standards, shall be the state standards, by which all county and municipal standards of weights and measures shall be tried, proved and sealed.

161. SEC. 2. The state Dairy and Food Commissioner by virtue of his office shall be state superintendent of weights and measures during his term of office. His deputy shall be deputy superintendent of weights and measures and all inspectors appointed by the dairy and food commissioner shall be state inspectors and sealers of weights and measures.

162. SEC. 3. The superintendent of weights and measures shall take charge of the standards adopted by this article as the standards of the state, and cause them to be kept in a safe and suitable place in the office of the superintendent from which they shall not be removed except for repairs or for certification and he shall take all other necessary precautions for their safe keeping. He shall maintain the state standards in good order and shall submit them at least once in ten years to the national bureau of standards for certification. He shall at least once in five years try and prove by the state standards all weights, measures and other apparatus which may belong to any county or city, and shall seal such when found to be accurate stamping on them the letter "C" and the last two figures of the year with seals which he shall have and keep for that purpose. He shall have and keep a general supervision of the weights, measures and weighing and measuring devices offered for sale, sold, or in use in the state. He shall, upon the written request of any citizen, firm, corporation or educational institution in the state test or calibrate weights, measures, weighing or measuring devices, and instruments or apparatus used as standards in the state. He, or his deputy, or inspectors, by his direction, shall at least once annually test all scales, weights, and measures used in checking the receipts and disbursements of supplies in every institution for the maintenance of which moneys are appropriated by the legislature, and

he shall report in writing his finding to the supervisory board and to the executive officer of the institution concerned, and at the request of such board or executive officer the superintendent of weights and measures shall appoint in writing one or more employes then in the actual service of each institution, who shall act as special deputies without extra compensation for the purpose of checking the receipts and disbursements of supplies. He shall keep a complete record of standards, balances and other apparatus belonging to the state and take a receipt for same from his successor in office. He shall annually on the first day of July make to the governor a report of the work done by his office. The state superintendent or his deputy, or inspectors, at his direction, shall inspect all standards and apparatus used by the counties and cities at least once in five years and shall keep a record of the same. He, or his deputy, or inspectors, at his direction shall at least once in five years visit the various cities and counties of the state in order to inspect the work of the local sealers, and in the performance of such duties, he may inspect the weights, measures, balances, or any other weighing appliance of any citizen, firm or corporation, and shall have the same power as the local sealer of weights and measures. The superintendent shall issue from time to time, regulations for the guidance of city and county sealers, and the said regulations shall govern the procedure to be followed by the aforesaid officers in the discharge of their duties.

163. SEC. 4. The board of supervisors of each county and the commissioner or common council of each city who may in their discretion appoint a sealer under this act, shall procure at the expense of the county or city, and shall keep at all times, a complete set of weights and measures and other apparatus of such material and construction as said superintendent of weights and measures may direct. All such weights, measures, and other apparatus having been tried and accurately proven by him, shall be sealed and certified to by the state superintendent as hereinbefore provided; and shall be then deposited with and preserved by the county or city sealer as public standards for such county or city.

164. SEC. 5. The board of supervisors of each county may in its discretion appoint a county sealer of weights and measures in each county for a term of two years. He shall be paid a salary to be determined by said board, and no fee shall be charged by him or by the county for the inspection, testing, or sealing of weights, measures, or weighing or measuring devices; where not otherwise provided by law, the county sealer shall have the power within his county, and the state superintendent, his deputies and inspectors, within the state, to inspect, test, try, and ascertain if they are correct, all weights, scales, beams, measures of every kind, instruments or mechanical devices for measuring and tools, appliances and accessories connected with any and all such instruments or measures kept, offered, or exposed for sale, sold or used or employed within the county by any proprietor, agent, lessee, or employe in proving the size, quantity, extent, area, or measurement of quantities, things, produce, articles for distribution or consumption offered or submitted by such person or persons for sale, hire, or award; and they shall have the power to and shall from time to time weigh



or measure packages or amounts of commodities of whatsoever kind kept for the purpose of sale, offered for sale, or sold or in the process of delivery, in order to determine whether the same contains the amount represented, and whether they be offered for sale or sold in a manner in accordance with law. The county sealer shall at least once each year, and as much oftener as he may deem necessary, see that the weights, measures, and all apparatus used in the county are correct. The county and state inspectors may for the purpose above mentioned and in the general performance of their official duties enter or go in upon, and without formal warrant, any stand, place, building, or premises, or stop any vendor, peddler, junk dealer, coal wagon, ice wagon, delivery wagon, or any dealer whatsoever and require him, if necessary, to proceed to some place which the sealer may specify, for the purpose of making the proper tests. Whenever the county sealer or state inspectors find a violation of the statute relating to weights and measures, they shall cause the violator to be prosecuted. Whenever any sealer or inspector compares weights, measures, or weighing and measuring instruments and finds that they correspond, or causes them to correspond, with the standards in his possession, he shall seal or mark such weights, measures, or weighing or measuring instruments with appropriate devices to be approved by the state superintendent of weights and measures. The county sealer shall keep a complete record of all of his official acts and shall make an annual report to the board of supervisors and an annual report duly sworn to on the first day of July to the state superintendent of weights and measures on blanks to be furnished by the superintendent. The county sealer of weights and measures shall forthwith on his appointment give a bond in the penal sum of one thousand dollars, with sureties to be approved by the appointing power for the faithful performance of the duties of his office: Provided, however, That nothing in the above shall be construed to prevent two or more counties from combining the whole or any part of their districts as may be agreed upon by the board of supervisors with one set of standards and one sealer, upon the written consent of the state superintendent of weights and measures. A county sealer appointed in pursuance of such an agreement for such combination, shall, subject to the terms of his appointment, have the same authority, jurisdiction, and duties as if he had been appointed by each of the authorities who are party to the agreement.

165. SEC. 6. Any incorporated city in this state may in its discretion appoint a city sealer of weights and measures under this act. He shall be appointed by the mayor, by and with the advice and consent of the common council. He shall perform in said city the duties and have like powers as the county sealer in the county. In those cities in which no sealer is appointed as above, the county sealer of the county, if there be one, shall perform in said cities the duties and have like powers as in the county: Provided, however, That nothing in the above shall be construed to prevent any county and a city situated therein from combining the whole or any part of their districts as may be agreed upon with one sealer, subject to the written approval of the state superintendent of weights and measures. A sealer appointed in pursuance of an agreement for such combination shall, subject to the

terms of his appointment, have the same authority, jurisdiction, and duties as if he had been appointed by each of the authorities who are parties to the agreement.

166. SEC. 7. Any person who by himself or by his servant or agent or as the servant or the agent of another shall offer or expose for sale, sell, or use or retain in his possession, a false weight or measure or weighing or measuring device or any weight or measure or weighing or measuring device which has not been sealed by the sealer of weights and measures within five years, in the buying or selling of any commodity or thing or for hire or reward; or who shall dispose of any condemned weight, measure or weighing or measuring device contrary to law or remove any tags placed thereon by the sealer of weights and measures; or any person who by himself or by his servant or agent, or as the servant or agent of another, shall knowingly sell or offer or expose for sale less than the quantity he represents, or sell or offer or expose for sale any such commodity in a manner contrary to law; or any person who by himself or by his servant or agent, or as the servant or agent of another, shall sell or offer for sale or have in his possession for the purpose of selling any device or instrument to be used to, or calculated, to falsify any weight or measure, shall be guilty of a misdemeanor, and shall be punished by a fine of not less than twenty dollars nor more than one hundred dollars or by imprisonment for not more than three months or by both such fine and imprisonment upon first conviction; but upon a second or subsequent conviction he shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars or by imprisonment in the county jail for not more than one year or by both such fine and imprisonment.

167. SEC. 8. The superintendent of weights and measures, his deputy, inspectors, and the county and city sealers of weights and measures are hereby made special policemen, and are authorized to seize, for use as evidence and without formal warrant any false or unsealed weight, measure or weighing or measuring device or package or amounts of commodities, found to be used, retained or offered or exposed for sale or sold in violation of law.

168. SEC. 9. Any person who shall hinder or obstruct in any way, the superintendent of weights and measures, his deputy, or inspectors, or any county or city sealer, in the performance of his official duties shall be guilty of a misdemeanor, and shall be punished upon conviction thereof, in any court of competent jurisdiction, by a fine of not less than two nor more than two hundred dollars, or by imprisonment in the county jail for not more than ninety days or by both such fine and imprisonment.

169. SEC. 10. Any person who shall impersonate in any way the superintendent of weights and measures, his deputies, inspectors, or any county or city sealer, by use of his seal or otherwise, shall be guilty of a misdemeanor and shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for not more than ninety days or by both such fine and imprisonment.

170. SEC. 11. Sections four thousand eight hundred eighty-two, four thousand eight hundred eighty-three, four thousand eight hundred

eighty-four, four thousand eight hundred eighty-five, four thousand eight hundred eighty-six, four thousand eight hundred eighty-seven, four thousand eight hundred eighty-eight, four thousand eight hundred eighty-nine, four thousand eight hundred ninety, four thousand eight hundred ninety-one, four thousand eight hundred ninety-two, four thousand eight hundred ninety-three, four thousand eight hundred ninety-four, four thousand eight hundred ninety-five, four thousand eight hundred ninety-six and four thousand eight hundred ninety-seven, of the Compiled Laws of eighteen hundred ninety-seven, relative to weights and measures, are hereby repealed.

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AN ACT to provide for the weight per bushel, of certain grain, dried fruit, coal, vegetables and products.

*The People of the State of Michigan enact:*

(4900) SECTION 1. That whenever wheat, rye, shelled corn, corn on the cob, corn meal, oats, buckwheat, beans, clover seed, timothy seed, flax seed, hemp seed, millet seed, blue grass seed, red top seed, barley, dried apples, dried peaches, potatoes, potatoes (sweet), onions, turnips, peas, cranberries, dried plums, castor beans, salt, mineral coal, Hungarian grass seed, orchard grass seed, osage orange seed shall be sold by the bushel, and no special agreement as to the measure or weight thereof shall be made by the parties, the measure thereof shall be ascertained by weight and shall be computed as follows, viz.:

Sixty pounds for a bushel of wheat;  
Fifty-six pounds for a bushel of rye;  
Fifty-six pounds for a bushel of shelled corn;  
Seventy pounds for a bushel of corn on the cob;  
Fifty pounds for a bushel of corn meal;  
Thirty-two pounds for a bushel of oats;  
Forty-eight pounds for a bushel of buckwheat;  
Sixty pounds for a bushel of beans;  
Sixty pounds for a bushel of clover seed;  
Forty-five pounds for a bushel of timothy seed;  
Fifty-six pounds for a bushel of flax seed;  
Forty-four pounds for a bushel of hemp seed;  
Fifty pounds for a bushel of millet or Hungarian grass seed;  
Fourteen pounds for a bushel of blue grass seed;  
Fourteen pounds for a bushel of red top seed;  
Forty-eight pounds for a bushel of barley;  
Twenty-two pounds for a bushel of dried apples;  
Twenty-eight pounds for a bushel of dried peaches;  
Sixty pounds for a bushel of potatoes;  
Fifty-six pounds for a bushel of sweet potatoes;  
Fifty-four pounds for a bushel of onions;  
Fifty-eight pounds for a bushel of turnips;

Sixty pounds for a bushel of peas;  
Forty pounds for a bushel of cranberries;  
Twenty-eight pounds for a bushel of dried plums;  
Forty-six pounds for a bushel of castor beans;  
Fifty-six pounds for a bushel of Michigan salt;  
Eighty pounds for a bushel of mineral coal.  
Fourteen pounds for a bushel of orchard grass seed;  
Thirty-three pounds for a bushel of osage orange seed.

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### UNLAWFUL DISCRIMINATION.

(Act No. 103, Public Acts, 1913.)

AN ACT to prevent unlawful discrimination in the purchase of poultry, eggs, milk, cream and butter-fat, and to provide a punishment for the same.

*The People of the State of Michigan enact:*

171. SECTION 1. Any person, firm, copartnership or corporation engaged in the business of buying poultry, eggs, milk, cream or butter-fat for the purpose of manufacture, who shall with the intention of creating a monopoly or destroying the business of a competitor, discriminate between different sections, localities, communities or cities of this State by purchasing such commodity at a higher price or rate in one locality than is paid for the same commodity by said person, firm, copartnership or corporation in any other locality, after making due allowance for the difference, if any, in the actual cost of transportation from the locality of purchase to the locality of manufacture, shall be deemed guilty of unfair discrimination, and upon conviction thereof shall be punished by a fine not exceeding five hundred dollars or by imprisonment in the county jail not to exceed six months.

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### COMMISSION MERCHANTS.

(Act No. 184, Public Acts, 1913.)

AN ACT to regulate the business of selling farm products on commission, providing all commission merchants dealing in farm products shall be licensed, to provide against and punish fraud and deception in the sale of farm products on commission, and defining the duties of the State dairy and food commissioner relative thereto.

*The People of the State of Michigan enact:*

172. SECTION 1. As used in this article:

1. The term "commission merchant" shall include every person, firm, association and corporation, licensed under this article to receive, sell or offer for sale on commission within this State any kind of farm produce.

2. The term "farm produce" shall include all agricultural, horticultural, vegetable and fruit products of the soil, and meats, poultry, eggs, dairy products, nuts and honey, but shall not include timber products.

173. SEC. 2. On and after October first, nineteen hundred thirteen, no person, firm, association or corporation, whose principal place of business shall be located in any city in this State, shall receive, sell or offer for sale on commission within this State any kind of farm produce, without a license as provided in this article. Every person, firm, association and corporation in this State receiving farm produce for sale on commission shall annually on or before October first, file an application with the State dairy and food commissioner for a license to do a commission business in farm produce. Such application shall state the kind or kinds of produce which the applicant proposes to handle, the full name of the person or corporation applying for such license, and if the applicant be a firm or association, the full name of each member of the firm or association, the city and street number at which the business is to be conducted, and such other facts as the State dairy and food commissioner shall prescribe. Such applicant shall further satisfy the State dairy and food commissioner of his or its character, responsibility and good faith in seeking to carry on a commission business. The State dairy and food commissioner shall thereupon issue to such applicant, on payment of fifteen dollars, in cities of less than twenty thousand population, and twenty-five dollars, in cities of more than twenty thousand population, a license entitling the applicant to conduct the business of receiving and selling farm produce on commission at the place named in the application until the tenth day of October next following: Such license shall not be issued, however, to any applicant if during the preceding year a complaint from any consignor of farm produce for sale on commission shall have been filed with the State dairy and food commissioner against such applicant for any of the grounds specified in section four hereof, and such complaint shall have been established as true and just to the satisfaction of the commissioner after such complaint shall have been investigated by the commissioner in the manner provided by section three of this act.

174. SEC. 3. The commissioner and his assistants shall have power to investigate, upon the complaint of an interested person, or of his own motion, the record of any person, firm or corporation applying for a license, or any transaction involving the solicitation, receipt, transportation, sale or attempted sale of farm produce on a commission basis, including the making of charges in selling, carting, or other services, the failure to make proper and true accounts and settlements at prompt and regular intervals, the making of false statements as to condition, quality or quantity of goods received or while in storage, the making of false statements as to market conditions, or the failure to make payment for goods received or other alleged injurious transactions; and for such purpose may examine the ledgers, books of account, memoranda or other documents of any commission merchant and may take testimony therein under oath; but information relating to the general business of any such person, contained in such investigation and not relating to the immediate purpose thereof shall be deemed of a confidential nature by the commissioner, his assistants and em-

ployes. When a complaint is filed with the commissioner, he shall attempt to secure an explanation or adjustment; failing this, within ten days he shall cause a copy thereof, together with a notice of a time and place for a hearing on such complaint, to be served personally, or by mail, upon such commission merchants. If served by mail such complaint and notice shall be directed to such commission merchant at his place of business and the postage prepaid thereon. Such service shall be made at least seven days before the hearing. At the time and place appointed for such hearing, which shall be within the county where the commission merchant is licensed to do business, the commissioner or his assistants shall hear the parties to such complaint, shall have power to administer an oath, and shall enter in the office of the State dairy and food commissioner a decision either dismissing such complaint or specifying the fact which he deemed established on such hearing.

175. SEC. 4. The State dairy and food commissioner may decline to grant a license or may revoke a license already granted, where he is satisfied of the existence of the following cases or either of them:

1. Where false charges have been imposed for handling or services, or charges other than as by a schedule agreed on by the parties, or other than those customary in the trade;

2. Where there has been a failure to account promptly and properly or to make settlements with intent to defraud;

3. Where there have been false statements as to condition, quality or quantity of goods received or held for sale on commission;

4. Where there have been false or misleading statements as to market condition with intent to deceive;

5. Where there have been combinations to fix prices below the market level;

6. Where there has been a continual course of dealings of such nature as to satisfy the commissioner of inability of the commission merchant to properly conduct the business, or of an intent to deceive or defraud customers;

7. Where the commission merchant directly or indirectly purchases the goods for his own account without prior authority therefor, or without notifying the consignor thereof.

176. SEC. 5. The action of the commissioner in refusing to grant a license, or in revoking a license granted under this act, shall be subject to review by a writ of certiorari, and if such proceedings are begun; until the final determination of certiorari proceedings and all appeals therefrom, the license of such commission merchant shall be deemed to be in full force and effect, or if such license shall have been refused, such commission merchant shall not be deemed to have violated the provisions of this act, prohibiting the transaction of such business without a license, provided the fee for such license shall have been paid.

177. SEC. 6. The dairy and food commissioner shall publish in pamphlet form as often as he thinks is necessary, a list of all the licensed commission' merchants.

178. SEC. 7. The funds received for the license issued under section

two of this act shall be paid into the State treasury for the use and benefit of the State dairy and food department.

179. SEC. 8. If any shipper of farm produce to a commission merchant be dissatisfied with any statement relative to the sale of such shipment, he may apply to the State dairy and food commissioner, in writing, within sixty days of making such shipment, for an investigation. The State dairy and food commissioner shall treat such application as a complaint, and shall cause a full investigation of the transaction complained of to be made either by himself, or one of his assistants in the manner provided by section five of this act.

180. SEC. 9. Any person, who being a commission merchant in farm produce, shall (a) impose false charges for handling or services in connection with food products, or (b) fail to account for such food products, promptly and properly and to make settlements therefor with intent to defraud, or (c) shall make false or misleading statement or statements as to the market conditions with intent to deceive, or (d) enter into any combination to fix prices below market level, (e) directly or indirectly purchase for his or its own account, goods received by him upon consignment without prior authority therefor from the consignor, or shall fail to promptly notify the consignor of such purchase on his own account, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the cost of prosecution, or by imprisonment in the county jail or State house of correction and reformatory at Ionia, for not less than six months nor more than three years, or by such fine and imprisonment in the discretion of the court in each and every offense.

181. SEC. 10. Nothing in this act shall apply to retail dealers, real estate dealers or auctioneers selling farm products on commission.

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### UNWHOLESOME VEAL.

(Act No. 340, Public Acts, 1913.)

AN ACT to prevent and punish the sale of immature and unwholesome calves and veal.

*The People of the State of Michigan enact:*

182. SEC. 1. No person shall for the purpose of selling, kill a calf less than four weeks old, and no person shall sell the meat of any such calf or have the same in his possession with intent to sell the same either by himself, his agents, or servants.

183. SEC. 2. Whoever shall do any of the acts or things prohibited by this act, or in any way violate any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, and the costs of the prosecution, or by imprisonment in the county jail not

more than ninety days, or by both such fine and imprisonment in the discretion of the court.

184. SEC. 3. This act is immediately necessary for the public health.

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## UNWHOLESOME FOOD FOR ANIMALS.

(Act No. 179, Public Acts, 1913.)

AN ACT to regulate, prevent and punish the feeding of the flesh of old, decrepit, infirm, sick or diseased animals and unwholesome offal to animals or fowls, and provide a penalty for the violation thereof.

*The People of the State of Michigan enact:*

185. SECTION 1. No person shall feed to animals or fowls the flesh of an animal which has become old, decrepit, infirm or sick, or which has died from such cause, or offal or flesh that is putrid or unwholesome.

186. SEC. 2. Whoever shall do any of the acts or things prohibited by this act, or in any way violates any of its provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not more than one hundred dollars and the costs of prosecution, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

187. SEC. 3. This act is immediately necessary for the preservation of the public health.

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## SUGAR BEETS.

(Act No. 69, Public Acts, 1913.)

AN ACT providing for State inspection of sugar beet testing, weighing and taring, the appointment of inspectors, and the payment for their services.

*The People of the State of Michigan enact:*

188. SECTION 1. The dairy and food commissioner of the State of Michigan shall select and appoint two inspectors of sugar beet testing, weighing and taring, who shall be competent sugar chemists, and sugar testers of practical experience.

189. SEC. 2. Said inspectors at all times shall have access to such laboratories and weigh stations as are maintained by manufacturers of sugar in the State of Michigan, and shall devote their time during the active working season to the inspection of the beet sugar factories of the State.



190. SEC. 3. The head of the department of chemistry at the Michigan State agricultural college, the State experiment station chemist, and the State analyst shall prescribe a uniform method to be used in weighing, taring and testing all sugar beets purchased in the State of Michigan, by manufacturers of sugar, whether such beets be received at weigh stations or at the factory or factories owned by such sugar manufacturers; and the method thus prescribed shall be used by all manufacturers of sugar, purchasing beets in the State of Michigan; but all beets shall be tested for sugar content in the beet laboratories at the beet sugar factories.

191. SEC. 4. Whenever a petition, requesting the inspection of the work at any sugar beet testing laboratory or weigh station, is signed by one or more sugar beet growers, who are contractors with the sugar company conducting the laboratory or weigh station they desire inspected, is forwarded to the dairy and food commissioner of the State of Michigan, it shall be the duty of an inspector to make the inspection requested, as soon as circumstances permit. And whenever any sugar manufacturer in the State of Michigan shall make complaint to the dairy and food commissioner concerning the conduct of any of the inspectors, beet chemists, weigh men or tare men, at any factory or weigh station, it shall be the duty of the dairy and food commissioner to cause an inspection to be made of the conduct of any such person so complained of, and to take such action as he may deem proper.

192. SEC. 5. The sugar companies shall keep a daily record which shall show the name of the seller of beets, the weight and sugar per cent of all beets delivered, and such records shall be accessible to the inspectors at all times.

193. SEC. 6. Each manufacturer of sugar in the State of Michigan shall render to the State treasurer, within thirty days after the close of the campaign each year, a sworn statement of the number of tons of sugar beets sliced, and shall pay an annual inspection tax of one-fourth cent per ton on all beets manufactured into sugar. Said fund shall be maintained by the State treasurer as an inspection fund for beet sugar factories. The salaries and actual and necessary expenses and equipment of the inspectors appointed under the provisions of this act shall be paid out of the fund hereby created. The salaries of said inspectors shall not exceed the sum of two hundred dollars each per month.

194. SEC. 7. Any manager, officer or employe who shall refuse to admit to any beet sugar factory, or weigh station in operation in this State, any inspector having authority signed by the dairy and food commissioner of the State of Michigan; or who shall interfere with or obstruct any person so provided with such written authority in the exercise of any privilege, or in the discharge of any duty provided by this act, or who shall violate any of the provisions of this act, shall be guilty of a misdemeanor, and shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

195. SEC. 8. Each inspector appointed under this act shall before

entering upon the duties of his office, subscribe to an oath to be prepared by the dairy and food commissioner that he will faithfully and impartially perform the duties of his office.

196. SEC. 9. All beet chemists, and all weigh men and tare men employed by beet sugar manufacturers in the State of Michigan shall before entering on their duties, take and subscribe to an oath, to be prepared by the dairy and food commissioner, to make just and impartial tests and correct weights, samples and tares, a copy of which oath shall be posted in a conspicuous place where said person is employed.

197. SEC. 10. All persons engaged in weighing beets for sugar factories shall be declared public weigh masters.

198. SEC. 11. Any beet chemist, weigh master, or tare man who has taken the oath of office herein prescribed, and who shall make any false or fraudulent test, or take any false or fraudulent sample, tare or weight, shall be guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than one hundred dollars nor more than five hundred dollars, or by imprisonment in the county jail not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

199. SEC. 12. Any person who shall influence or persuade any chemist, weigh man or tare man to make any unfair or fraudulent test, tare or sample, or take any false or fraudulent weights, shall be guilty of a misdemeanor, and subject to a fine of not less than five hundred dollars nor more than one thousand dollars, or to imprisonment for not less than sixty days nor more than six months in the county jail.

200. SEC. 13. The dairy and food commissioner shall prepare copies of this act, which shall be posted by the manufacturers of beet sugar conspicuously where beets are weighed, tared or tested.

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### CERTIFIED MILK.

(Act No. 248, Public Acts, 1911.)

AN ACT providing for the incorporation of medical milk commissions, and certification of milk produced under their supervision.

*The People of the State of Michigan enact:*

201. SECTION 1. Authority is hereby given the board of health of any city, village or township in this State, so constituted as to have in its membership two or more physicians duly authorized to practice medicine under the laws of this State, to appoint five physicians duly authorized to practice medicine under the laws of this State a medical milk commission for the purpose of supervising the production, transportation and delivery of milk, which it is intended to use for infant feeding, sick-room clinical purposes in said city, village or township. In cities, villages or townships not having a board of health so constituted as

above stated, the State Board of Health may make such appointment. All members of such milk commission shall have and possess all the powers and immunities provided by this act or any other act relating to the appointees of such board of health, while performing their duties as such appointees. One member of such commission shall be appointed and hold office from the time of such appointment until the end of the thirty-first of December, nineteen hundred eleven, one shall be appointed and hold office until the end of thirty-first of December nineteen hundred twelve, one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred thirteen, and one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred fourteen, one shall be appointed and hold office until the end of the thirty-first of December, nineteen hundred fifteen, and until their several successors are appointed and qualified. The term of office of each member of the commission, after the termination of the aforesaid terms shall be five years, and on the expiration of any term a new appointment shall be made in the same manner above prescribed. No more than one milk commission shall be appointed for any one city, village, or township. Any and all members of such commission may be removed at any time by the board which appointed them. Such medical milk commission shall make and file a certificate in writing in the manner hereinafter mentioned.

202. SEC. 2. Such certificates shall set forth:

The name of such association, which shall be as hereinafter designated;

The purpose for which the association shall be formed;

The names and residences of the medical directors who shall manage the affairs of the association for the first year of its existence;

The city, village or township in this State where such association shall operate.

[Am. by Act No. 196, P. A., 1913.]

203. SEC. 3. Such certificate shall be executed in triplicate and acknowledged before some person within this State authorized to take the acknowledgment of deeds, and one copy thereof shall be filed in the office of the clerk of the county where the purposes of such association are to be carried out and one copy shall be filed in the office of the Secretary of State; said certificate or copy thereof duly certified by the said clerk or Secretary of State shall be evidence in all courts or places.

204. SEC. 4. The name of such association shall be "The Medical Milk Commission of the ..... (stating whether city, village or township) of ..... (designating the name of city, village or township) ..... (designating the name of the county) ..... County of Michigan."

[Am. by Act No. 196, P. A., 1913.]

205. SEC. 5. Such medical directors shall have the power from time to time to make, alter and amend by-laws not inconsistent with the constitution and laws of the United States and of this State, and to

appoint such agents and officers as shall in their judgment tend to promote or advance any purpose or purposes of such commission, and to prescribe their respective duties; and for the regulating of the conditions under which milk shall be produced by any dairyman or dairymen under contract with such commission.

206. SEC. 6. No medical director of any association organized under this act shall receive, directly or indirectly from such association or dairyman, or dairymen producing milk under agreement with such commission, any salary or emolument or any compensation of any kind or character for any services rendered under the provisions of this act, and any medical director who shall receive any salary, emolument or any compensation of any kind or character for such services, shall be liable to a penalty of one hundred dollars to be recovered in an action of debt by the association of which he is a member, and in addition thereto shall be removed from his office as a member of said association, and thereafter disqualified from becoming a member of any association incorporated under the provisions of this act.

207. SEC. 7. Every such association shall have the power to enter into agreement in writing with any dairyman or dairymen for the production of milk under the supervision of such association for the purposes enumerated in section one hereof, and to prescribe in such agreement the conditions under which such milk shall be produced, which conditions however, shall not be below the standards of purity and quality for certified milk as fixed by the American association of medical milk commissions, and the standards for milk now fixed or that may hereafter be fixed by the Board of Health of the State of Michigan. In any contract entered into by any such commission with any dairyman or dairymen, it may be provided that such medical milk commission may designate any analyst, chemist, bacteriologist, veterinarians, medical inspectors or other persons who in its judgment may be necessary for the proper carrying out of the purposes of such commission for employment of such dairyman or dairymen, and to prescribe and define their powers and duties, and that such persons so employed by such dairyman or dairymen may be discharged from employment whenever such medical milk commission may request such discharge or removal in writing.

208. SEC. 8. All containers of any kind or character used in the carrying or distribution of milk produced by any dairyman or dairymen under contract with any medical milk commission shall have attached thereto or placed thereon a certificate or seal bearing the name of the medical milk commission with which such dairyman or dairymen producing such milk shall be under contract, which certificate shall have printed, stamped or written thereon the day or date of the production of the milk contained in any such container and the words "certified milk" in plain and legible form.

209. SEC. 9. The work and methods of any milk commission organized under this act and of the dairies of which milk is produced under contract with any such commission, shall at all times be subject to investigation and scrutiny by the local board of health and the Board of Health of the State of Michigan. The secretary of said State Board

of Health and the local health officer shall be ex-officio members of every milk commission organized under this act.

210. SEC. 10. No person, firm or corporation shall sell or exchange or offer or expose for sale or exchange in any city, village or township as and for certified milk, any milk which is not certified by the medical milk commission of that city, village or township, and which is not produced in conformity with the methods and regulations for the production of certified milk from time to time adopted by the American association of medical milk commissions, and which is below the standards of purity and quality for certified milk as fixed by the American association of medical milk commissions.

[Am. by Act No. 196, P. A., 1913.]

211. SEC. 11. Whoever shall by himself, servant or agent sell, exchange or deliver or have in his custody with intent to sell, exchange or deliver, or offer or expose for sale in any city, village or township as certified milk, any milk which has not been certified by the medical milk commission of that city, village or township, or shall violate any of the provisions of this act, shall upon conviction thereof be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, or by imprisonment in the county jail not more than ninety days, or by both such fine and imprisonment in the discretion of the court.

[Am. by Act No. 196, P. A., 1913.]

212. SEC. 12. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

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## OLEOMARGARINE IN PUBLIC INSTITUTIONS.

(Act No. 45, Public Acts of 1891.)

AN ACT to prohibit the use of oleomargarine, butterine, or any other substitute for butter in any of the public institutions of this State, and to provide the punishment therefor.

*The People of the State of Michigan enact:*

213. SEC. 1. That the use of oleomargarine, butterine or any other substitute for butter, in any of the public institutions of this state, be and the same is hereby prohibited, except in the penal institutions of the state.

[Am. by Act 233, P. A., 1913.]

214. SEC. 2. Any warden, superintendent or other officer of any such institution, who shall knowingly violate the provisions of section one of this act, or shall knowingly permit the same to be violated shall

be deemed guilty of a misdemeanor and every violation shall constitute a separate offense and on conviction thereof shall be punished by a fine of not less than twenty-five, nor more than one hundred dollars, together with costs of prosecution, or by imprisonment in the county jail of the county in which said institution is situated, not exceeding ninety days, or both such fine and imprisonment, at the discretion of the court.

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### MILK BOTTLES.

(Act No. 257, Public Acts of 1911.)

AN ACT to prohibit drivers of milk wagons and unauthorized persons from opening milk bottles, or in any way interfering with or molesting the caps or covers thereof after such bottles shall have been closed at the creamery, and during and after the process of delivery to patrons.

*The People of the State of Michigan enact:*

215. SECTION 1. From and after the date on which this act takes effect, it shall be unlawful for any driver of any milk wagon, or any distributor of milk, or any person whatsoever, except legally authorized milk inspectors and persons to whom such milk is delivered, to open milk bottles or in any way interfere with or molest the caps or covers of the same after such milk bottles shall have been closed at the creamery, or during the process of the delivery of said milk or, after said milk shall have been delivered in due course of business and in the ordinary manner.

216. SEC. 2. Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof in a court of competent jurisdiction shall be punished by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

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### FRUITS AND VEGETABLES.

(Act No. 207, Public Acts, 1913.)

AN ACT to prevent fraud and deception in the sale of Michigan grown fresh fruits and vegetables, and to provide penalties for violations of this act.

*The People of the State of Michigan enact:*

217. SECTION 1. In this act, unless the contents otherwise requires, the term "closed package" shall be construed to mean a barrel, box, basket, carrier or crate, of which all the contents cannot readily be seen or inspected when such package is prepared for market. Fresh

fruits or vegetables in baskets or boxes, packed in closed or open crates, and packages covered with burlap, tarlatan or slat covers shall come within the meaning of the term "closed package." None of the provisions of this act shall apply to other than Michigan grown fruits and vegetables.

218. SEC. 2. Every person who, by himself or by his agent or employe, packs or repacks fresh fruits or vegetables in closed packages intended for sale in the open market, shall cause the same to be marked in a plain and indelible manner, as follows:

First, With his full name and address, including the name of the state where such fresh fruits and vegetables are packed, before such fresh fruits or vegetables are removed from the premises of the packer or dealer;

Second, The name and address of such packer or dealer shall be printed or stamped on said closed packages in letters not less than one-quarter inch in height.

219. SEC. 3. No person shall sell or offer, expose or have in his possession for sale, in the open market, any fresh fruits or vegetables packed in a closed package and intended for sale, unless such package is marked as is required by this act.

220. SEC. 4. No person shall sell or offer, expose or have in his possession for sale, any fresh fruits or vegetables packed in a closed or open package, upon which package is marked any designation which represents such fruit as "No. 1," "Finest," "Best," "Extra Good," "Fancy," "Selected," "Prime," "Standard," or other superior grade or quality, unless such fruit or vegetables consist of well grown specimens, sound, of nearly uniform size, normal shape, good color, for the variety, and not less than ninety per cent free from injurious or disfiguring bruises, diseases, insect injuries or other defects, natural deterioration and decay in transit or storage excepted.

221. SEC. 5. No person shall sell or offer, expose or have in his possession for sale, any fresh fruits or vegetables packed in any package in which the faced or shown surface gives a false representation of the contents of such package, and it shall be considered a false representation when more than twenty per cent of such fresh fruits or vegetables are substantially smaller in size than or inferior in grade to, or different in variety from, the faced or shown surface of such package, natural deterioration and decay in transit or storage excepted.

222. SEC. 6. Every person who, by himself, his agent or employe, knowingly violates any of the provisions of this act shall for each such offense, be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding ten dollars, or by imprisonment in the county jail for a period not exceeding thirty days, or by both such fine and imprisonment in the discretion of the court.

**TABLE GRAPES.**

(Act No. 107, Public Acts, 1913.)

**AN ACT to regulate the packing for shipment and sale of table grapes, and providing penalties for violation thereof.**

*The People of the State of Michigan enact:*

223. SECTION 1. No grapes that are not ripe, or are the fruit of unhealthy vines, or are for any reason unhealthy or in a state of decay shall be packed for shipment by any grower, packer or shipper in any package or basket of less than sixteen pounds capacity.

224. SEC. 2. Any person or persons found guilty of violating any of the provisions of this act, in any court of competent jurisdiction, shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment in the county jail for not less than ten days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court.

225. SEC. 3. It shall be the duty of the state dairy and food commissioner, his deputies and assistants, to enforce the provisions of this act.

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**COLLECTION OF REGISTRATION FEES BY CIVIL SUIT.**

(Public Act No. 37, Session Laws, 1913.)

**AN ACT to provide for the collection of registration, license and other fees due the state dairy and food department, by means of a civil suit in the state courts.**

*The People of the State of Michigan enact:*

226. SECTION 1. Whenever any corporation, firm or person engaged as a dealer, manufacturer, storer or transporter of any food or beverage product for man or animal, doing business within the state shall for thirty days after the same becomes due refuse or neglect to pay any registration or license fee which the laws of Michigan require said corporation, firm or person to pay to the state dairy and food department, the state dairy and food commissioner may bring a civil suit in the name of the people of the state of Michigan for the use and benefit of the state dairy and food department for the recovery of said registration or license fee.

227. SEC. 2. Said suit may be commenced in the circuit court for the county of Ingham or in the circuit court of the county where the principal business office of such defendant corporation, firm or person shall be located and shall be prosecuted in like manner as in civil suits



between individuals, and judgment and execution may follow in like manner and costs may be recovered to be taxed as in other civil cases, and all moneys recovered shall be paid into the state treasury for the use and benefit of the state dairy and food department: Provided, That no suit as authorized by this act, shall be commenced until thirty days after the defendant in such suit has been duly notified of his or her delinquency, either personally or by registered letter.

228. SEC. 3. All expenses incurred by the state dairy and food commissioner under this act shall be defrayed by the state dairy and food department out of its annual appropriation.

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### DECEPTIVE ADVERTISING.

(Act No. 276, Public Acts, 1913.)

AN AOT to regulate and prohibit false, deceptive, fraudulent and misleading advertising in newspapers, periodicals or other publications, or by circulars or handbills.

*The People of the State of Michigan enact:*

SECTION 1. Any person, firm, corporation or association, or the agent or manager of any such firm, corporation or association who, with intent to sell or in anywise dispose of merchandise, securities, service or anything offered by such person, firm, corporation or association, directly or indirectly, to the public for sale or distribution, or with intent to increase the consumption thereof, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, knowingly makes, publishes, disseminates, circulates, or places before the public, or knowingly causes directly or indirectly to be made, published, disseminated, circulated or placed before the public, in this State, in a newspaper or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet, or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service or anything so offered to the public, which advertisement contains any assertion, representation or statement of fact which is untrue, deceptive or misleading, shall be guilty of a misdemeanor, and shall be punished by a fine of not less than twenty-five dollars nor more than two hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment in the discretion of the court: Provided, That the publisher or printer of any newspaper or other periodical shall not be liable under this act for publishing deceptive advertising received from any other person: Provided further, That said printer or publisher is not aware of the deceptive character of the advertising so received.

## MICHIGAN SUPREME COURT.

## DECISIONS RELATIVE TO DAIRY AND FOOD LAWS.

## PEOPLE v. SNOWBERGER.

(Opinion filed May 25, 1897.)

## Adulteration of Food—Statutory Offenses—Intent—Police Power.

1. It is competent for the legislature under the police power, to provide for the protection of the public health by making it an offense punishable by fine and imprisonment to sell adulterated food or drink, irrespective of the seller's knowledge of the adulteration.
2. Act No. 193, Public Acts 1895, prohibits the manufacture or sale of adulterated articles of food or drink, and prescribes what shall be deemed adulteration within the meaning of the act. Section 8 forbids any person from *knowingly* offering for sale cheese which is falsely labeled; this being the only case in which knowledge is expressly made an element of an offense designated by such statute. *Held*, that proof of guilty knowledge or intent is not essential to the conviction of one who sells adulterated food.

(113 Mich. 86.)

Exceptions before judgment from Monroe; Kinne, J.

Michael Snowberger was convicted of selling adulterated food, in violation of Act No. 193, Public Acts of 1895.

Conviction affirmed.

William Look and Ira G. Humphrey, for appellant.

Bowen, Douglas &amp; Whiting, of counsel.

Willis Baldwin, Prosecuting Attorney, for the people.

Long, C. J.: Respondent was convicted under an information charging that: "On the 19th day of April, A. D. 1897, at the city of Monroe, and in the county aforesaid, Michael Snowberger did offer for sale, and sell, to Carl Franke, an adulterated article of food, to wit: A quantity of mustard, to wit, a quarter of a pound, colored and adulterated with tumeric, whereby the said mustard, as an article of food, was damaged and its inferiority concealed and whereby it was made to appear of better and of greater value than it really was, the same not being a mixture or compound recognized as ordinary articles or ingredients of articles of food; contrary to the form of the statute in such case made and provided," etc.

The information was filed under Act No. 193, Public Acts 1895, entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink." The act provides:

Section 1. "No person shall within this state manufacture for sale, offer for sale, or sell any article of food which is adulterated within the meaning of this act."

Section 2. "The term food as used herein, shall include all articles used for food or drink, or intended to be eaten or drunk by man, whether simple, mixed or compound."

Section 3. "An article shall be deemed to be adulterated within the meaning of this act: One, If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity; Two, If any inferior or cheaper substance or substances have been substituted wholly or in part for it; Three, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; Four, If it is sold under the name of another article; Five, If it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in case of milk, if it is the product of a diseased animal; Six, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; Seven, If it contains an added substance or ingredient which is poisonous or injurious to health: Provided, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale be distinctly labeled as mixtures or compounds, and are not injurious to health."

Section 19 makes any violation of the act a misdemeanor and provides a penalty by a fine of not less than \$100 nor more than \$500, or by imprisonment in the county jail, etc.

On the trial respondent admitted, that on the 19th day of April, 1897, he, at the city of Monroe, this State, offered for sale and did sell to Carl Franke a quantity of mustard, to wit, a quarter of a pound which was afterwards found upon a chemical examination to be colored and adulterated with tumeric, whereby the said mustard as an article of food was damaged and its inferiority concealed, and it was thereby made to appear of greater and better value than it really was; the same not being a mixture or compound recognized as an ordinary article or ingredient of articles of food.

But he claimed that said article of mustard, so sold was purchased by him as a pure article in good faith, and that he believed at the time of the purchase by him and also at the time of the sale to the said Franke, that the same was pure mustard, free from any coloring and adulteration with tumeric or any other coloring or adulterant, and that no inferiority was concealed whereby it was made to appear of greater or better value than it really was; that at the time he purchased the same he asked for pure mustard and that the same was warranted to him as pure; that he did not make or cause to have made a chemical examination of the same and did not inform himself or endeavor to ascertain the methods of determining pure from impure mustards, but relied upon the representations of his vender and the appearance of the article to the eye; and that he did not intend to violate the law.

From such conviction respondent appeals.

It is the contention of counsel for respondent that it was the intent of the legislature to provide by the act that no person should be convicted and punished for selling adulterated food or drink without showing that he knew the same to be adulterated; that the information does not charge such knowledge, and the proofs disclosed that respondent acted in good faith and in the belief that the article sold was pure and unadulterated.

The act cannot be so construed. The offense under the act consists in selling an article intended to be eaten or drunk which is adulterated.

Section 8 of the acts shows conclusively that the legislature did not intend to make criminal intent or guilty knowledge a necessary ingredient of the offense. As a rule there can be no crime without a criminal intent; but this rule is not universal.

In *People v. Roby*, 52 Mich. 577 (50 Am. Rep. 270), the respondent was convicted of the offense under the statute of keeping his saloon open on Sunday. It was there said: "It is contended that to constitute an offense under the section referred to (How. Stat., Sec. 2274), there must be some evidence tending to show an intent on the part of the respondent to violate it. \* \* \* \* The section under which Roby is prosecuted makes the crime consist, not in the affirmative act of any person, but in the negative conduct of failing to keep the saloon closed. As a rule there can be no crime without a criminal intent; but this is not by any means a universal rule. One may be guilty of the high crime of manslaughter when his only fault is gross negligence, and there are many other cases where mere neglect may be highly criminal. Many statutes which are in the nature of police regulations, as this is, impose criminal penalties irrespective of any intent to violate them; the purpose being to require a degree of diligence for the protection of the public which shall render violation impossible."

Many cases are cited in that case where convictions were sustained although the element of guilty knowledge was lacking. Thus in Massachusetts a person may be convicted of the crime of selling intoxicating liquors as a beverage though he did not know it to be intoxicating.

*Com. v. Boynton*, 2 Allen, 160.

And of the offense of selling adulterated milk, though ignorant of its adulteration.

*Com. v. Farren*, 9 Allen, 489.

*Com. v. Nichols*, 10 Allen, 199.

*Com. v. Waite*, 11 Allen, 264.

*Com. v. Smith*, 103 Mass., 444.

In Missouri a magistrate may be liable to the penalty for performing the marriage ceremony for minors without consent of parents or guardians, though he may suppose them to be of the proper age.

*Beckham v. Nacke*, 56 Mo., 546.

Where the killing and sale of a calf under a specified age is prohibited there may be a conviction though the party was ignorant of the animal's age.

*Com. v. Raymond*, 97 Mass., 567.

In *People v. Welsh*, 71 Mich. 548, this court in speaking of *People v. Roby*, supra, said: "When a statute does not make intent an element of the offense, but commands an act to be done or omitted which in the absence of the statute might have been done or omitted without culpability, ignorance of the fact or state of things contemplated by the statute will not excuse its violation;" citing:

*State v. Hartfel*, 24 Wis., 60.

In the late case in this court of *Walcott v. Judge of Superior Court*, 112 Mich. 311, the relator, as prosecuting attorney of the county, filed an information against one Fred Saunders, charging him with being engaged in selling liquor without giving the bond required by the statute. The bond was fair upon its face, but one of the sureties, it appears, was disqualified under section 2283dl, 3 How. Stat. The information did not allege that respondent had knowledge of this defect in the bond. The information was quashed by the court below, and the relator asked the aid of mandamus to compel the respondent to reinstate the case. It was said by this court in the majority opinion: "It was the intention of the legislature to make the execution and delivery of the prescribed bond a condition precedent to sale, and to require the person desiring to engage in the business mentioned to assume the responsibility of knowing that the bond when presented complies in all essential particulars with the law. He must know that his sureties are males, that they are resident freeholders of the township, village or city in which the business is to be carried on, that they hold none of the offices prohibited by the act, and that at the time the bond is filed neither is a surety upon more than two bonds required by the act."

It appeared that one of the sureties was already upon more than two bonds; and the writ was granted compelling the respondent to reinstate the case. The case of *People v. Roby* was cited in that case in support of the proposition that intent was not an ingredient of the offense.

These regulations are under the police power of the State. Undoubtedly it was competent for the legislature to prohibit the sale of adulterated articles of food and drink. The police power of the State extends to the protection of the health as well as of the lives and property of the citizens. Generally it is for the legislature to determine what laws and regulations are needed to protect the public health and secure the public comfort and safety. If it passes an act ostensibly for the public health and thereby destroys or takes away the property of the citizen or interferes with his liberty it is for the courts to determine whether it relates to and is appropriate to promote such public health. Under the police power the conduct of individuals and the use of property may be regulated so as to interfere to some extent with the freedom of the one and the enjoyment of the other. It cannot be doubted that the legislature intended by this act to protect the public against the harmful consequences of sales of adulterated food, and to the end that its purpose might not be defeated to require the seller at his peril to know that the article which he offers for sale is not adulterated.

As was said by the supreme court of Ohio, in *State v. Kelly*, 54 Ohio St. 166: "If this statute had imposed upon the State the burden of proving \* \* \* his knowledge of its adulteration, it would thereby have defeated its declared purpose."

In *State v. Smith*, 10 R. I. 260, the court, speaking of the offense of selling adulterated milk, said: "Counsel for defendant asked the court to charge that there must be evidence of a guilty intent on the part of the defendant and of a guilty knowledge in order to convict him. Our statute in that provision of it, under which this indictment was found does not essentially differ from the statute of Massachusetts, and there previous to the enactment of our statute the supreme court had

determined that a person might be convicted although he has no knowledge of the adulteration; the intent of the legislature being that the seller of milk should take upon himself the risk of knowing that the article he offers for sale is not adulterated."

Statutes in many states have been passed providing that whoever sells, or keeps or offers for sale adulterated milk, or milk to which water or other foreign substance has been added shall be punished, etc. Under these statutes it has been decided many times that the risk is upon the seller of knowing that the article he offers for sale is not adulterated, and that it is not necessary in an indictment under such a statute to allege or prove criminal intent or guilty knowledge.

Com. v. Smith, 103 Mass., 444.

Com. v. Warren, 160 Mass., 533.

People v. Clipperly, 101 N. Y., 634.

The same rule that no criminal intent is necessary has been held to apply under an act forbidding the sale of oleomargarine or other imitations of dairy products, unless express notice be given to the purchaser.

Bayles v. Newton, 50 N. J. L., 549.

Com. v. Gray, 150 Mass., 327.

The English rule is in keeping with the doctrine in this country on this subject.

Roberts v. Egerton, L. R., 9 Q. B., 494.

The statute not requiring knowledge on the part of the seller to make the offense complete, we are satisfied that the conviction must be sustained. No case has been cited, and we are not able to find one, where a contrary doctrine is laid down. The act may work hardship in many cases; but that question is one to be addressed to the legislature and not to the courts. As we have said, it was within the power of the legislature to pass the act making it an offense punishable with fine and imprisonment to sell adulterated food or drink, although the person selling the same has no knowledge that it is adulterated. Under this statute one making sales must do so at his peril.

The conviction is affirmed.

Grant, J., did not sit. The other justices concurred.

#### PEOPLE v. WORDEN GROCERY CO.

(Opinion filed December 6, 1898.)

Constitutional Law—Act to Prevent Sale of Adulterated Vinegar—Complaint—Reasonableness of Statute—Defense.

1. The title to an act reading "An act in relation to the manufacture and sale of vinegar, and to repeal Act No. 224 of the Public Acts of 1889, approved, etc.," held broad enough to support an enactment to prevent deception in the sale of vinegar or to prevent adulteration of vinegar.

2. A conviction for a sale of "fermented cider vinegar," which was not up to the standard prescribed by Act No. 71, Public Acts of 1897, may be had under a complaint drawn under section 2 of the act.
3. The question as to whether the requirements of an act passed to prevent the sale of adulterated vinegar are such as to render the act unreasonable, cannot be determined by the courts and does not raise a question of fact for determination by a jury.
4. Where a sample of vinegar is taken from a dealer for the purpose of testing it to see if it conforms to the standard required by law it is not necessary that a sample be left with the dealer.
5. A prosecution for a sale of vinegar in violation of Act No. 71, Public Acts of 1897, cannot be defended on the ground that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

Error to the circuit court of Kent county; Allen C. Adsit, J.

Appeal of the Worden Grocer Co. from a conviction of a violation of Act No. 71, Public Acts of 1897. Affirmed.

Frank A. Rodgers, Prosecuting Attorney; Benn M. Corwin, Assistant Prosecuting Attorney, for the people.

Rood & Hindman, for respondent.

Long, J.: The complaint in this cause charges that the defendant: "On February 5, 1898, did unlawfully sell and deliver to John T. Owens of Benton Harbor, Michigan, a large quantity, to wit: One barrel of vinegar which was not then and there in compliance with the provisions of Act No. 71, Public Acts, 1897, in this, viz.: That said vinegar was sold as "fermented cider vinegar" and branded as such; that said vinegar contained less than one and three-fourths per cent by weight upon full evaporation (at the temperature of boiling water) of solids contained in the fruit from which said vinegar is fermented, to wit: One and fifty-one one hundredths per cent of solids; and said vinegar contained less than two and a half tenths of one per cent ash or mineral matter, the same being the product of the material from which said vinegar was manufactured, to wit: Eight one-hundredths of one per cent of ash or mineral matter, against the form of the statute in such case made and provided," etc.

The cause was commenced in the police court, and, being removed to the circuit, came on to be heard before a jury. The defendant refused to plead, and counsel for defendant thereupon made a motion to quash the complaint and summons for several reasons which will hereafter be discussed. The court upon the trial directed a verdict of guilty, and the cause comes to this court on exceptions before judgment.

The title of the act reads: "An act in relation to the manufacture and sale of vinegar, and to repeal Act No. 224 of the Public Acts of 1889, approved," etc. Sections one and two of the act, being the sections in question, provide:

"Section 1. The People of the State of Michigan enact, That no person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. No vinegar shall be sold as apple, or orchard or cider

vinegar, which is not the legitimate product of pure apple juice, known as apple cider or vinegar not made exclusively of said apple cider or vinegar into which foreign substance, drugs or acids have been introduced, as may appear upon proper test, and upon said test, shall contain not less than one and three-fourths per cent, by weight, of cider vinegar solids upon full evaporation at the temperature of boiling water.

"Section 2. All vinegar made by fermentation and oxidation without the intervention of distillation shall be branded 'fermented vinegar' with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded 'distilled vinegar,' and all of such distilled vinegar shall be free from coloring matter added during or after distillation and from color other from that imparted to it by distillation. And all fermented vinegar not distilled shall contain not less than one and three-fourths per cent, by weight, upon full evaporation (at the temperature of boiling water) of solids, contained in the fruit or grain from which said vinegar is fermented, and said vinegar shall contain not less than two and a half tenths of one per cent ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance and shall contain not less than four per cent, by weight, of absolute acetic acid."

It appears by the testimony that the defendant, a Michigan corporation doing business at Grand Rapids, on February 5, 1898, sold a barrel of vinegar to one John T. Owens of Benton Harbor. The sale is admitted. A sample of the vinegar was taken from this barrel and analyzed by the State Analyst, Mr. Fred H. Borradaile. The correctness of this analysis is not disputed. This analysis showed that the vinegar did not comply with the requirements of the statute in that it did not contain the amount of solids nor the amount of ash or mineral matter required.

The contentions made by counsel for defendant mostly relate to the validity of the act.

1. It is contended that the title to the act does not express any object; that the act was intended to prevent deception in the sale of vinegar or to prevent adulteration of vinegar, but that no such object is expressed in the title; and that the act is therefore in conflict with section 20 of article 4, of the constitution of this State, which provides that: "No law shall embrace more than one object, which shall be expressed in its title."

We think this contention sufficiently answered by what was said by this court in *Soukup v. Van Dyke*, 109 Mich. 681. There the title was: "An act relative to justices' courts in the city of Grand Rapids." It was said: "The title is sufficient if it fairly and reasonably announces the object and that is a single one. If this requirement be observed, the legislature must determine for itself how broad and comprehensive shall be the object of a statute and how much particularity shall be employed in the title in defining it."

In *People v. Kelly*, 99 Mich. 82, the title under discussion was: "An act relative to disorderly persons, and to repeal," etc.

See also:

*State v. County Judges*, 2 Iowa, 280.

*McAunich v. The Miss. & Mo. R. R. Co.*, 20 Iowa, 342.

2. Counsel contend that the complaint being drawn under section two of the act, no conviction can follow; that if any violation of the



law be found, it is of section one and not of section two of the act; that, therefore, the complaint was drawn under the wrong section.

This contention cannot be sustained. It is plain from the reading of these sections that the legislature intended that all fermented vinegar should come up to the required standard, whether made from fruit or grain.

3. The defendant contends that the act is unreasonable and therefore void as beyond the police power of the State, in that the test for cider vinegar in regard to solids is arbitrary, unscientific and not calculated to accomplish the end sought by the legislature, viz.: To protect the public health against spurious vinegar; that such test is no test, because:

a. Said solids and ash are indifferent ingredients of vinegar from a hygienic standpoint.

b. Their comparative absence or presence is not an essential ingredient of pure apple cider vinegar.

c. A vinegar can be manufactured which will satisfy the requirements of the statute and yet contain no materials from apples or the product of apples.

d. A pure apple cider vinegar is frequently made which is below the requirements of the statute in solids and ash.

e. The less proportion of solids is a proof of greater purity in the vinegar and of its better keeping qualities.

These questions might very properly be addressed to the legislature, but are matters with which the court has nothing to do. It is not a part of the functions of the court to investigate the facts entering into questions of public policy merely. Under our system that power is lodged in the legislative branch of the government. It belongs to that branch to determine primarily what measures are appropriate or needful for the protection of the public morals, the public health or the public safety.

Barton v. McWhinney, 85 Ind., 481.

Mugler v. Kansas, 123 U. S., 660.

Powell v. Pennsylvania, 127 U. S. 685.

In *People v. Snowberger*, 113 Mich. 92, it was said by this court: "The act may work hardship in many cases, but that question is one to be addressed to the legislature and not to the courts."

The question of the reasonableness of the acts found in many states relative to the sale of milk below a certain standard has been frequently raised in the courts, and the acts upheld.

In *Com. v. Evans*, 132 Mass. 11, the court passing upon such a statute said: "The intention of the legislature and the practical operation of this section in connection with the third section is to provide that it shall be unlawful to sell milk containing less than thirteen per centum of milk solids. This belongs to the class of police regulations designated to prevent frauds and to protect the health of the people, which it is within the constitutional power of the legislature to enact."

In *State v. Smyth*, 14 R. I. 100, the court said: "It was the purpose of the statute to prohibit, not only the dealing in milk which had been adulterated, but also in milk of such inferior quality as to fall

below the standard named in section three. It is equally a fraud on the buyer, whether the milk which he buys was originally good and has been deteriorated by the addition of water or whether in its natural state it is so poor that it contains the same proportion of water as that which has been adulterated." See also:

State v. Newton, 45 N. J. L., 469.  
 Bertholf v. O'Reilly, 74 N. Y., 509.  
 State v. Campbell, 64 N. H., 403.  
 10 Am. St. Rep., 419.

But counsel contend that the reasonableness of this act is a question of fact for the jury to determine from the expert chemical evidence.

This question is neither for the court nor the jury to determine. In *People v. Clipperly*, 101 N. Y. 634, that very question was discussed and decided adversely to the claim here. It was said: "The defendant takes the broader ground that the legislature cannot under the constitution prohibit the sale of milk drawn from healthy cows which in its natural state falls below standard fixed by the act, unless such milk, or the articles made from it, are in fact unwholesome or dangerous to public health. How is that question of fact to be determined? The court cannot take judicial notice whether milk below the standard is or is not unwholesome or dangerous to public health. Is that to be a question for the jury? If so, the court must charge a jury in each case that if they find milk below that standard to be unwholesome, then the statute is constitutional; if they find it to be wholesome, then the statute is unconstitutional. Evidently a constitutional question cannot be settled, or rather, unsettled in that way. The constitutionality would vary with the varying judgments of juries."

In the emery wheel case before us, in *People v. Smith*, 108 Mich., p. 534, a somewhat similar question was discussed. It was said: "If the courts find the plain provisions of the constitution violated, or if it can be said that the act is not within the rule of necessity in view of facts of which judicial notice may be taken, then the act must fall; otherwise it should stand."

See also:

*People v. Girard*, 145 N. Y., 109.  
 (45 Am. St. Rep. 595.)

4. Counsel also contend that defendant was not allowed, nor could it obtain, a sample of the vinegar in question for analysis, and was deprived of the right to produce evidence as to the amount of solids in the vinegar; and was thus deprived of property without due process of law.

The record shows that the defendant was not prevented from getting a sample of the vinegar by any person interested in the prosecution of the suit. The record shows that the only effort it made to get such sample was a letter written to Mr. Owens who had bought and paid for the vinegar, requesting him to return it, to which the defendant received no reply, and it does not appear that Mr. Owens had any of the vinegar left

at that time. No sample was left with the defendant by the prosecution; nor was this necessary.

Com. v. Coleman, 157 Mass., 460.

5. This statute forbids the manufacture and sale of vinegar not in compliance therewith; and persons manufacturing or selling vinegar below the standard do so at their peril. It is no defense that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

People v. Snowberger, 113 Mich., 86; 71 N. W. R., 497.

We have examined the other questions raised, but do not deem it necessary to discuss them. They relate mostly to offers of testimony which the court below ruled out; and, we think, properly.

The testimony was uncontradicted that the vinegar sold was not in compliance with the statute. The sale was admitted.

The court was not in error in directing the verdict. The conviction must be affirmed.

Grant, C. J., did not sit. The other justices concurred.

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PEOPLE v. DETTENTHALER.

GROSVENOR v. JACKSON CIRCUIT JUDGE.

(Opinions filed December 6, 1898.)

Constitutional Law—Passage of Act Without Enactment Clause—Constitutional Provision Mandatory—Addition of Clause by Governor—Act 76, Laws of 1897, Invalid.

1. The provision in the Michigan State constitution, found in Sec. 48 of Art. IV. that all laws shall be styled, "The People of the State of Michigan enact," is mandatory and the passage of an act without the enactment clause renders the act invalid.
2. The addition of the enacting clause by the Governor before affixing his signature will not render the law valid which was passed without an enactment clause.
3. Act No. 76, Laws of 1897, being "An act to prevent deception in the manufacture and sale of imitation butter" held to be invalid because of the passage of the act without an enactment clause was not rendered valid by the addition of such clause by the Governor before affixing his signature to the act.

Error to the superior court of Grand Rapids; Edwin A. Burlingame, judge.

Exceptions taken by Frank J. Dettenthaler from a conviction of a violation of the pure food law.—Reversed and no new trial.

Frank D. Rodgers, Prosecuting Attorney, (Rodgers, McDonald & Corwin of counsel), for the people.

Rood & Hindman and E. F. Sweet, for respondent.

Certiorari by Elliot O. Grosvenor, Dairy and Food Commissioner, to review the action of the Jackson circuit judge in denying a mandamus. Affirmed.

John G. Hawley and Benn M. Corwin, for relator.

Rood & Hindman and E. F. Sweet, for respondent.

Hooker, J.: These cases involve the validity of Act No. 76, Public Acts, 1897, which is as follows:

"An act to prevent deception in the manufacture and sale of imitation butter."

Section 1. The People of the State of Michigan enact, That no person, by himself or his agents, or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream from the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient, that causes it to look like butter.

Sec. 2. Whoever violates any of the provisions of section one (1) of this act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, and the costs of prosecution, or by imprisonment in the county jail, or State House of Correction and Reformatory at Ionia, for not less than six months nor more than three years, or by both such fine and imprisonment in the discretion of the court for each and every offense.

Approved April 15, 1897.

The evidence in the first entitled cause shows that the defendant was convicted of the alleged offense of selling oleomargarine in contravention of this act.

In the other a complaint was made of a similar act to a justice, who refused to issue the warrant, and on application the circuit court denied a mandamus to compel it. The cases raise substantially the same questions, and were argued, and will be considered together. The validity of the law is questioned. The record shows that this was a senate bill and passed the senate without the constitutional enacting clause. The records of the house show that the bill was reported by the committee on agriculture and the committee of the whole, without amendment, and with the recommendation that it be passed. Under the head of "third reading of bills upon passage," the record of the house shows that "pending the third reading of the bill, Mr. Chamberlain moved that the bill be recommitted to the committee of the whole, which motion did not prevail. The bill having been read a third time, and the question being upon its passage pending the taking of the vote, Mr. Graham demanded the previous question. The demand was seconded. The question being, 'Shall the main question be now put?' The same was ordered. The bill

- was then passed, a majority of all the members elect voting therefor, by yeas and nays, as follows: \* \* \* yeas 56, nays 19." As this is the only time the bill was before the house, we must find that the bill passed the house without an enacting clause, unless the contrary can be shown by other evidence. Counsel undertook to show that it was amended in this particular, by the records of the senate, and the testimony of the clerk of the house. The evidence is in brief, that previous to the passage of the bill in the house the clerk noticed the absence of the enacting clause, and brought it to the attention of the house, and said that he would enter one, and accordingly wrote the words in the original bill, i. e., the one which was then before the house. He did not testify that the house took any action upon it, or that any record was made of it.

The senate record shows that the bill was subsequently returned to the senate, accompanied by a letter from the clerk of the house, reading as follows:

"House of Representatives,  
"Lansing, April 7, 1897.

"To the president of the Senate:

"Sir—I am instructed by the House to return to the Senate the following bill: Senate bill No. 6, file No. 24, entitled

" 'A bill to prevent deception in the manufacture and sale of imitation butter' and to inform the Senate that the House has amended the same as follows: By inserting in line 1, Section 1, after the words 'Section 1,' the words 'The People of the State of Michigan enact.'

Very respectfully,  
"LEWIS M. MILLER.

"Clerk of the House of Representatives.

"In the passage of which, as thus amended, the House has concurred by a majority vote of all the members elect."

It further appears that the senate concurred in such amendment.

We must determine, therefore, whether the house is shown to have amended the bill by inserting an enacting clause and if not whether the law is valid without it.

The most that can be claimed is that there is oral testimony, that the clerk announced its absence and stated that he would supply it. Inferentially perhaps we may say that there was no objection made, but the evidence is silent as to what, if anything, occurred. There is nothing but this inference of silence which imports acquiescence in the amendment. There is nothing to show definite action by the house which alone had power to amend the bill before it. So that if the clause is essential to the validity of the act we need not discuss the propriety of admitting parol evidence to prove an amendment which should be shown by the record if one was authorized.

See Attorney General v. Rice, 64 Mich., 391.

Hart v. McElroy, 72 Mich., 446.

Sackrider v. Supervisors, 79 Mich., 66.

Is the constitutional enacting clause a requisite to a valid law? This must depend upon whether the constitutional provision is to be considered a mandatory provision or directory merely.

See Constitution, Art. IV., Sec. 48.

Among the authorities cited by the relator in support of his contention, is that of *Swann v. Buck*, 40 Miss. 268. The constitutional provision is similar to ours, and it was held that a substantial compliance was sufficient. In that case the style of the resolution was: "Resolved by the legislature of the State of Mississippi." The court was unable to discover a previous judicial decision of the question, but quoted Mr. Cushing to the effect that the prescribed "form must be strictly pursued, and that no equivalent language will be sufficient," and while declining to accept his rule said: "It is necessary that every law should show on its face the authority by which it is adopted, and promulgated, and that it should clearly appear that it is intended by the legislative power that enacts it that it should take effect as a law. These conditions being fulfilled all that is absolutely necessary is expressed. The word 'resolved' is as potent to declare the legislative will, as the word 'enacted.'"

The case of *McPherson v. Leonard*, 29 Md. 377, held that the provision of the constitution of Maryland was directory, and that the omission of the words, "by the general assembly of Maryland," did not render the law invalid. The question appears to have been treated as a new one.

The case of *Cape Girardeau v. Riley*, 52 Mo. 427, follows the Maryland case, in holding the provision directory; the court saying that after diligent search, no case holding to the contrary had been found. In this case, like the one before us, the entire enacting clause was wanting. In this connection we may add that previous decisions of the same court, holding the provision that writs should run in the name of the state, was directory, were given weight. In our State a contrary holding will be found.

See *Forbes v. Darling*, 94 Mich. 621.

There are, however, cases which take a contrary view of the law, and adhere to the doctrine asserted by Mr. Cushing, and the late Mr. Justice Cooley, in his work on constitutional limitations, 6 Ed., p. 93, viz.:

"But the courts tread upon very dangerous ground when they venture to apply the rules which distinguish directory and mandatory statutes to the provisions of a constitution. Constitutions do not usually undertake to prescribe mere rules of proceeding, except when such rules are looked upon as essential to the thing to be done; and they must then be regarded in the light of limitations upon the power to be exercised. It is the province of an instrument of this solemn and permanent character to establish those fundamental maxims and fix those unvarying rules by which all departments of the government must at all times shape their conduct, and if it descends to prescribing mere rules of order in unessential matters, it is lowering the proper dignity of such an instrument, and usurping the proper province of ordinary legislation. We are not, therefore, to expect to find a constitutional provision which the people, in adopting it, have not regarded as of high importance, and worthy to be embraced in an instrument, which, for a time at least, is to control alike the government and the governed, and to form a standard by which is to be measured the power which can be exercised as well by the delegate as by the sovereign people themselves. If directions are given respecting the times or modes of proceeding in which a power should be exercised there is at least a strong presumption that the people designed it should be exercised, in that time and mode only; and we impute to the people a want of due appreciation of the purpose and proper province of such an instrument, when we infer that such directions are given to any other end.

Especially when, as has already been said, it is but fair to presume that the people in their constitution have expressed themselves in careful and measured terms, corresponding with the immense importance of the powers delegated, and with a view to leave as little as possible to implication."

There are some cases, however, where the doctrine of directory statutes has been applied to constitutional provisions, but they are so plainly at variance with the weight of authority upon the precise points considered that we feel warranted in saying that the judicial decisions as they now stand do not sanction the application.

The question arose in Washington territory over a law fixing the seat of government, and the opinion of Cushing was quoted and followed. 1 Wash. Ter. 116. The case of *Nevada v. Rogers*, 10 Nevada 250, decided in 1875, did the same. An extended discussion of the subject will be found in that case, in support of the proposition that the language of the constitution should be literally followed.

The opinion concludes with the following pertinent and emphatic language:

"Our constitution expressly provides that the enacting clause of every law shall be 'The People of the State of Nevada, represented in senate and assembly, do enact as follows.' This language is susceptible of but one interpretation. There is no doubtful meaning as to the intention. It is, in our judgment, an imperative mandate of the people in their sovereign capacity to the legislature, requiring that all laws to be binding upon them shall, upon their face, express the authority by which they were enacted, and as this act comes to us without such authority appearing upon its face, it is not a law."

The case of the *State v. Patterson*, 98 N. C. 662, is strong in its condemnation of the practice of treating constitutional requirements as directory. The case of *Powell v. Jackson*, 51 Mich. 130, is not in point, as the bill was duly and seasonably amended, if we may accept the statement of the briefs of the counsel and the syllabus.

The trend of the weight of the authority is in our opinion against the relator's contention.

It is urged with some plausibility that the insertion of this provision previous to the signature by the Governor is a sufficient compliance with the constitution, from which we understand the claim to be made that although the enacting clause was wanting when the bill came to the Governor it might have been supplied by him. But it is thought that this proposition is tenable only upon the assumption that the constitutional provision is directory merely. The Governor has no power to make laws. The legislative power is in no part vested in him, being by Sec. 1, Article IV, of the constitution, vested in the senate and house of representatives. It is not the design of the constitution that he should legislate. His office is a check upon the legislature and he may compel a reconsideration of a bill by seasonably returning it to the appropriate house with his objections to it, and when the legislature has adjourned his neglect to sign it prevents it from becoming a law, but he has not the slightest power in framing the law. Indeed, it is a fundamental principle in American constitutions that the executive shall not make laws. The following language from the opinion in the case of *State of Nevada v. Rogers*, 10 Nev. 250, is apropos to this subject:

"Without the concurrence of the senate the people have no power to enact any law. Every person at all familiar with the practice of legislative bodies is aware that one of the most common methods adopted to kill a bill and prevent its becoming a law, is for a member to move to strike out the enacting clause. If such motion is carried the bill is lost. Can it be seriously contended that such a bill, with its head cut off, could thereafter by any legislative action become a law? Certainly not. The certificates of the proper officers of the senate and assembly, that such an act was passed in their respective houses, do not, and could not impart vitality to any act which, upon its face, failed to express the authority by which it was enacted."

This being so, the only justification for the insertion of the enacting clause by the Governor is to be found in the assumption that it is a clerical omission of an unimportant matter and it might as well be held that one of the houses, or a clerk, or even the printer of the laws, might make the correction, as that the Governor might do it.

Some of the states have sustained laws without enacting clauses, but we do not know of one that has made their validity depend upon the unauthorized action of some officer or person. They have preferred to rest their action upon the well recognized distinction between mandatory and directory provisions. If the provision is mandatory that the law shall have a prescribed style and the making of laws is confined to the legislative branch of the government, it cannot be consistently held that omissions of essential parts of a law may be supplied and corrections made by persons without authority; and the public necessities should be much greater than in the present case, before such a proposition should be seriously considered. If on the other hand there is a warrant for treating the provision as directory, a much less dangerous precedent is established. But as has been shown, the weight of authority forbids it, and in our opinion it will be an unfortunate day for constitutional rights when courts begin the insidious process of undermining constitutions by holding unambiguous provisions and limitations to be directory merely, to be disregarded at pleasure. In the present case it will be much better that the legislature shall correct its mistake, than that the courts shall sanction the irregular correction.

We are therefore constrained to hold that the law under discussion is void, and in the certiorari case the order is affirmed, in that of Dettenthaler the conviction is reversed and no new trial ordered. The other justices concurred.

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#### GROSVENOR v. DUFFY.

(Opinion filed September 18, 1899.)

Pure Food Law—Sale of Oleomargarine Colored to Imitate Butter—Constitutionality of Act.

The sale of oleomargarine colored with a harmless substance to imitate June butter, but which is sold and purchased as oleomargarine, is not in violation of section 3 of Act 118 of the Public Acts of 1897, being an act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink.



Certiorari to review the action of the Washtenaw circuit judge in refusing the application of Elliot O. Grosvenor, Dairy and Food Commissioner for mandamus to compel John L. Duffy, justice of the peace, to issue a warrant. Affirmed.

Smedley & Corwin, for relator.

John J. Speed and J. P. Lee, for respondent.

The relator presented to a justice of the peace a complaint in writing, charging that "Casper Rinsey did unlawfully offer and expose for sale, and did unlawfully sell and deliver to said Elliot O. Grosvenor, a large quantity, to wit, one pound of oleomargarine, which was then and there an article of food intended to be eaten by man, and which was then and there adulterated within the meaning of Act No. 193 of the Public Acts of Michigan for the year 1895, as amended by Act No. 118 of the Public Acts of Michigan for the year 1897, in this, to wit: that said oleomargarine was then and there an imitation of another article of food, to wit: an imitation of a rich June butter; and said oleomargarine had been and was then and there colored, whereby inferiority was concealed and by which means it was made to appear better and of greater value than it really was, to wit, in this: That it was thereby made to appear like butter of a grade which was then and there of a greater value than the said oleomargarine; that the said oleomargarine was labeled 'oleomargarine' and stamped with the seller's name; and that the tub and wrapper which contained the same bore the name and address of the manufacturer and was distinctly labeled oleomargarine."

"Said complainant on his oath aforesaid, further says, that he called for oleomargarine, and that the said oleomargarine was sold to him as oleomargarine the same as to an ordinary customer, freely and without objection; and that for this reason he did not take the steps required by section 6, Act No. 154 of the Public Acts of Michigan for the year 1897."

The justice refused to entertain the complaint and issue a warrant, whereupon the relator applied to the circuit court for Washtenaw county for the writ of mandamus to compel the justice to issue a warrant and proceed to hear the case. The circuit court refused the writ and the case is brought to this court by certiorari for review.

Grant, C. J. (after stating the facts). The title of the act reads "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink." Sec. 3, as amended by Act No. 118, Public Acts 1897, so far as it applies to this case, reads:

"An article shall be deemed to be adulterated within the meaning of this act: \* \* \*

"Fourth—If it is an imitation of, or sold under the name of another article. \* \* \*

"Sixth—if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is.

"Seventh—If it contains any added substance or ingredient which is poisonous or injurious to health: Provided, That nothing in this act

shall prevent the coloring of pure butter: And provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale, bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definition fourth and seventh of this section."

It is not claimed that the sale made by Rinsey violates subdivision seven. The act charged in the complaint is neither adulteration, fraud nor deception under any definition of these words to be found in any dictionary. Adulteration is "the act of corrupting or be basing, the act of mixing something impure or spurious with something pure or genuine, or an inferior article with a superior one of the same kind."

Bouv., L. D., 126.  
Century Dictionary.

Counsel do not urge that it comes within the word "fraud" or "deceit." Neither is it urged that the article is made to appear of greater value than it really is. It is not claimed that the coloring matter used is in the least deleterious. The law permits its use to color butter. Counsel rely upon *People v. Snowberger*, 113 Mich. 86. That case is not in point. The gravamen of the offense there was that the article of food was damaged, inferior, its inferiority concealed, and it was made to appear of greater value than it really was.

This brings us to the only question we need to determine, viz.: Is the title to the act broad enough to include the sale complained of? Would any person reading the title to the bill in the legislative journals, or elsewhere, suppose that the bill would make criminal an act which in itself was entirely harmless, honest, innocent and contained no element of wrong-doing? Or that it would change the well known definition of a word so as to include within it things which were in no sense akin to it and which could only be included in it by the most arbitrary legislative enactments? Would a manufacturer of, or dealer in butter or oleomargarine, be notified by the title that the harmless coloring of either was not only to be prohibited but to be punished by fine or imprisonment or both? There can be but one answer to these questions. When the legislature attempts to change definitions and to make acts criminal which per se are innocent and contain no element of wrong, there must be something in the title to show such purpose or object under Sec. 20, Art. 4 of the constitution. The title contains not even an intimation that an entirely innocent act is to be made a crime. It follows that this part of the act is void.

*Bissel v. Wayne* Probate Judge, 58 Mich., 237.  
*Northwestern M'fg Co. v. Wayne* Circuit Judge, Id., 381.  
*McKellar v. Detroit*, 57 Mich., 158.

This statute is assailed as unconstitutional upon other grounds. This disposal of the case renders it unnecessary to discuss them. How far the legislature may go, under the police power inherent in the State in prohibiting and punishing acts which in themselves are perfectly harmless,

would be an interesting subject of inquiry, but as it is not necessary to a disposal of the case we decline to enter upon it.

Judgment affirmed. The other justices concurred.

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PEOPLE v. SKILLMAN.

(Opinion filed March 4, 1902.)

Pure Food Law—Section 5022 C. L. Construed—Action Against Traveling Salesman.

A traveling salesman for a wholesale grocery firm, residing out of the State, took an order in this State for pure fruit jelly and forwarded the order to his employers. The order was filled with imitation fruit jelly. Information was filed against the salesman under section 5022 C. L., regulating the manufacture and sale of imitation fruit jellies. *Held*, That respondent was not guilty of violating the terms of the statute.

Error to the circuit court for Muskegon county. Fred J. Russell, judge.

Appeal of John Skillman from a conviction under the pure food law. New trial ordered.

Chas. B. Cross, Prosecuting Attorney, for the people.

Elliott O. Grosvenor and Smedley & Corwin, for respondent.

Moore, J.: An information was filed against the respondent which, omitting the formal parts, reads as follows: "That one John Skillman heretofore, to wit, on the sixteenth day of September, A. D. 1901, at the city of Muskegon, in the county of Muskegon aforesaid, did unlawfully offer for sale and did sell to Albert Towle a large quantity, to wit: a certain compound under the name of Quince Jelly which was then and there adulterated within the meaning of the Act No. 193 of the Public Acts of the State of Michigan of the year 1895, as amended by Act No. 118 of the Public Acts of the State of Michigan of the year 1897, as amended by Act No. 117 of the Public Acts of the State of Michigan of the year 1899, in this, to wit: That said compound was then and there made and composed in part of glucose, starch and other substances, and was then and there colored in imitation of fruit jelly contrary to the form of the statute."

After the testimony was all in, a motion was made asking the judge, for various reasons, to direct a verdict in favor of respondent. This motion was overruled. The case was submitted to the jury which returned a verdict of guilty.

A great many errors are assigned. We think some of them which we shall discuss are well taken, but as the case if ever tried again, will not present the same questions now presented by counsel we deem it

unnecessary to pass upon all the questions argued by them in the briefs.

To sustain the case of the people testimony in substance as follows was introduced: It was shown the respondent had for some years been a traveling salesman in the employ of Reid, Murdock & Company of Chicago, that he solicited an order from Mr. Towle, a grocer in Muskegon, that Mr. Towle gave him an order for a case of assorted pure fruit jelly. Mr. Skillman did not have the goods with him, but reduced the order to writing in the presence of Mr. Towle at his store, and forwarded it to the house in Chicago. It is as follows:

"Reid, Murdock & Co., Chicago,  
Sept. 12, 1901.

Name: Albert Towle.

Town: Muskegon.

State: Michigan.

Ship by Barry Line.

Salesman: Skillman.

1 c P. F. Jelly Med. Asst.....	100
1 c P. F. Jelly Med. Currant.....	100
60 days."	

"1 c P. F. Jelly Med. Asst." was explained to mean one case pure fruit jelly medium size assorted glasses. Mr. Towle testified Mr. Skillman claimed it was pure fruit jelly for which he took the order, and that was what he intended to buy. It was not shown that respondent had anything further to do with the transaction than as above stated. Later a case of goods was received from Reid, Murdock & Company and testimony was given tending to show that a tumbler of this jelly was sold to Mr. Bennett, inspector of the Dairy and Food Department of Michigan, and by him forwarded to the State Analyst, where it is claimed upon analysis it was shown to be a mixture of fruit juice, glucose, starch and coloring-matter. Upon the cross examination of Mr. Towle the following occurred:

"Q. Did you give Mr. Skillman more than one order for fruit jelly about this time? A. Well, he had two or three orders I think, two at least.

"Q. Two orders? A. One of them might have been ordered by mail.

"Q. Now you received two consignments of fruit jelly from the orders you had given to Mr. Skillman? A. I think so, yes, sir.

"Q. Upon which one of these orders did you receive this particular tumbler of jelly that you afterwards sold to Mr. Bennett? A. I couldn't say. The one that he bought was out of that order I think. (Witness pointing to order exhibited.)"

The defense claimed that the label "pure fruit jelly" placed upon the tumbler analyzed was put there by mistake. It was their claim that Reid, Murdock & Company dealt in two kinds of jelly, those made out of pure fruit and those made in imitation of pure fruit, and that when the imitation was sold in Michigan and certain other states their instructions were to label them "imitation," and that these instructions were furnished in writing to their agents, including the respondent, and they offered testimony tending to prove this claim. The written

instructions were also offered in evidence, but with the testimony offered were excluded by the court.

Among other requests offered by the respondent was the following:

"Under the undisputed evidence in this case there is nothing to show that the respondent offered to sell any jelly in violation of any statute of this State, but, on the contrary, it is shown that respondent offered to sell strictly pure fruit jelly and sent such an order to Reid, Murdock & Company of Chicago, Illinois, and the charge in the information for selling and offering to sell adulterated jelly is not sustained by the evidence, and your verdict should be not guilty."

The judge refused to give this request, but charged the jury, "It is recognized by the legislators and is a matter of common knowledge that many of the wholesalers that are doing business in Michigan are not residents of this State, so the legislature saw fit to make a law where a man solicited the sale of pure jellies, took an order for the sale of pure jellies, and in response to that order and offer, a different class of goods was furnished, that the party should be guilty of violating this particular law. In other words, instead of that order or offer and the furnishing of goods delivered to the party by a party who might be a non-resident of the State, that it should relate to the man who actually made the offer, the man who actually took the order for the furnishing of this particular article. The people claim that this is the matter in which this defendant here is liable."

This statement of the law is sought to be justified by *People v. Snowberger*, 113 Mich. 86, and *People v. Grocer Co.*, 118 Mich. 604, 71 N. W. 497, 67 Am. St. Rep. 449, 77 N. W. 315. A reference to these cases will show that the respondent in each of them admitted making the sale of the goods. In this case the respondent denies that he sold any goods coming within the provisions of the statute. Giving the only interpretation to the testimony as it appears in the record which can be fairly given to it shows Mr. Towle was solicited to give an order for pure fruit jelly. He gave such an order. It was reduced to writing and in the writing the jelly was described as pure fruit jelly. As before stated the only connection of the respondent with the transaction as shown by the record is the taking of an order for an article not within the terms of the statute and forwarding it. This does not constitute an offense. It might as well be urged that if a traveling salesman takes an order for Michigan beet sugar and forwards a written order for such sugar, and if the house, instead of filling the order as written, sends glucose with a label upon the package containing it calling it Michigan beet sugar the salesman would be guilty of an offense. This we do not understand to be the law. Upon the case as made the circuit judge should have directed a verdict of not guilty. *People v. Howard*, 50 Mich. 242, 15 N. W., 101.

The verdict is set aside and a new trial ordered.

Long, J., did not sit. The other justices concurred.

## THE PEOPLE v. MORSE.

(Opinion filed June 3, 1902.)

Pure Food Law—Sales by Agents—Criminal Responsibility for Acts of Principal.

1. A traveling salesman who in good faith takes an order for "pure pepper," which is filled by his principal with impure pepper, is not guilty of a violation of Public Acts 1895, No. 193, forbidding the sale of impure foods.
2. Public Acts 1895, No. 193 (Pure Food Laws) Sec. 17, providing that the taking of an order for future delivery of any of the articles covered by the "act shall be deemed a sale, within the meaning of the act," does not make an agent absolutely responsible for the acts of his principal in filling the orders taken by such agent, and an order by the agent which is filled by the principal as an entirety may be, under the act, a sale of impure food, as to the principal, and yet not such as to the agent.

Error to circuit court, Muskegon county; Fred J. Russell, judge.

John W. Morse was convicted of a violation of the pure food law, and he brings error. Reversed.

Underwood &amp; Umlor, for appellant.

Chas. B. Cross, Prosecuting Attorney, and George S. Lovelace, Assistant Prosecuting Attorney, for the people.

Hooker, J.: The brief filed on behalf of the people states that the case is similar to that of *The People v. Skillman*, 8 *Detroit Legal News*, 1090, 89 N. W. 330, and in effect concedes that the case must be reversed if we adhere to our former decision.

The defendant took an order for some pepper, as and for pure pepper, to be shipped to a dealer in Muskegon, by defendant's principal, a wholesaler in Chicago. The pepper when sent was not pure.

It is insisted that the *Skillman* case is at variance with the weight of authority elsewhere, and contrary to our own cases, in which it is said that we have held that a guilty intent on the part of a vendor, is not essential to an offense, under the pure food law (Public Acts 1895, No. 193). It is further said that in the decision in the *Skillman* case, section seventeen of the act must have been overlooked or considered unconstitutional.

The transaction in which the order was taken did not involve an immediate delivery of pepper, then and there present. It is not shown that the sample, if there was one, was the same as the pepper subsequently sent, or that it was in the least impure. If it be conceded that the agent acted in good faith, and we understand that it is not questioned, he took an order for pure goods, and in doing that certainly committed no offense. It is now urged that the exigencies of the enforcement of this law are such, that we should hold that this innocent and lawful action, may be made a crime by the subsequent act of the principal, either intentional or inadvertent, in departing from, instead of performing the contract which his agent had innocently made. We think this is not so, and we are also of the opinion that this does not necessarily

do violence to section seventeen. This transaction, as an entirety, may have been a sale of impure pepper under the statute as to the principal, and not as to the agent. If the order had been taken, with knowledge on the part of the agent of a practice to send impure pepper on such orders, a different question would be presented.

The judgment is reversed and a new trial ordered.

Long J., did not sit. The other justices concurred.

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PEOPLE v. ROTTER.

(Opinion filed June 24, 1902.)

Food Oleomargarine Act—Constitutional Law—Statutes—Title—Object.

1. Public Acts 1901, No. 22, entitled "An act to prevent deception in the manufacture and sale of imitation butter," which in addition to forbidding sale of imitation butter, prohibits sales of colored oleomargarine, is not, on that account, open to the objection that the object is not expressed in the title, as required by Const. Art. 4, Sec. 20.
2. The act is not in contravention of the fourteenth amendment of the federal constitution.
3. The act is a valid exercise of the police power.

Error to circuit court, Emmet county; Frank Shepard, judge.

George W. Rotter was convicted of selling colored oleomargarine, and brings error. Affirmed.

Smedley & Corwin, Sears, Meagher & Whitney (James F. Meagher and Kay Wood, of counsel), for appellant.

Horace M. Oren, Attorney General, and Matthew F. Guinon, Prosecuting Attorney, for the people.

Hooker, C. J.: At its last session, the legislature passed an act under the title, "An act to prevent deception in the manufacture and sale of imitation butter." Public Acts 1901, No. 22.

Section 1 of said act provides that:

"No person, by himself or his agents or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter."

Section 2 prescribes a penalty for the violation of the act.

The defendant was a grocer in Emmet county, and is shown to have

sold a package of oleomargarine, which by an analysis was proven to have contained artificial coloring matter, and that said oleomargarine was not made wholly from unadulterated milk or cream from the same, and that it was made in imitation of yellow butter, produced from unadulterated milk or cream from the same. The court was asked to direct a verdict of not guilty upon the grounds:

1st. That the object of the act was not expressed in the title, as required by section 20 of article 4 of the constitution of this State;

2d. That the act violates the fourteenth amendment of the constitution of the United States, and article 6, section 32, of the constitution of this State;

3d. That it was not within the police power of the State.

The evidence conclusively shows that no deception was used in selling the oleomargarine, and there is nothing to indicate that there was any harmful ingredient therein, but that, on the contrary there was not such ingredient. The defendant was convicted, and the case is here on exceptions before sentence.

It is contended that the title to the act indicates that the act was designed to prevent deception in the manufacture and sale of imitation butter, while the act attempts to go further and prevent all sales of such colored oleomargarine.

If oleomargarine colored yellow, closely resembles yellow butter, made from milk or cream, it cannot reasonably be said not to resemble or imitate yellow butter. Butter is a well known commodity. From time immemorial it has had but one origin, viz.: from the churning of milk or cream. Whatever may be said of the possibility of making a product from other compounds than milk or cream that shall closely resemble or be chemically identical with butter, the world has but one understanding of what is meant by the word "butter," and we must assume that such is the sense in which our legislature used the term. Compiled Laws, Sec. 50, Sub. 1.

A fair inference from this statute is that the legislature undertook to prevent deception, by preventing the sale of any yellow oleomargarine, and it undertook to accomplish this by the most effective means, viz.: by prohibiting the coloring of oleomargarine yellow, thereby avoiding the embarrassment which would otherwise arise from the necessity of proving in each case, that deceit was used in selling it, as and for butter. We think this is fairly within the title, whatever must be said of the other points raised. We are referred to the case of *N. W. Mfg. Co. v. Chambers*, 58 Mich. 381, 25 N. W. 372, 55 Am. Rep. 693, as conclusive upon this question, in which case it is said that "all that could be done under such a title would be to prohibit and prevent sale of such articles under false pretenses." We are of the opinion that this language is too restrictive, and that it is at variance with the settled doctrine in this State, that any provision, naturally calculated to accomplish the object expressed in the title may be included in the act.

See:

*Soukup v. VanDyke*, 109 Mich., 681.

*People v. Worden Grocer Co.*, 118 Mich., 607.

The case cited was rightly disposed of upon another ground, and it



is possible that the language above quoted should be considered a dictum. Moreover, the cases are distinguishable for whereas, that act attempted to prevent all sales of imitation butter, and was therefore perhaps inconsistent with the title, which apparently contemplated lawful sales, the statute under consideration in the present case, does not prohibit sales of oleomargarine, which is not tainted with the prohibited ingredients.

It is unnecessary to discuss the other points at length for the reason that the uniform trend of judicial opinions is that such laws are valid.

State v. Meyers, 42 W. Va. 825; 35 L. R. A. 844.  
 New Hampshire v. Marshall, 1 L. R. A. 51.  
 Powell v. Penna. 127 U. S. 678.  
 People v. Armsberg, 105 N. Y. 113.  
 Butler v. Chambers, 36 Minn. 69.  
 People v. Worden Grocer Co., 118 Mich. 604.  
 People v. Armsberg, 105 N. Y. 123.  
 State v. Crescent Creamery Co., 86 N. W. 107.  
 State v. Ball, 46 Atl. Rep. 50.  
 Commonwealth v. Van Dyke, 13 Pa. Sup. Ct. Rep. 484.  
 Commonwealth v. McCann, 14 Pa. Sup. Ct. Rep. 221.  
 Armour Packing Co. v. Snyder, 84 Fed. Rep. 136.  
 Cap. City Dairy Co. v. State, 22 Sup. Ct. Rep. 120.  
 Wright v. State, 41 Atl. Rep. 795.

We are of the opinion that the legislature had the power to pass this law, and its wisdom of policy is not for our consideration.

The judgment is affirmed and the court directed to sentence the defendant.

Long, J., did not sit. The other justices concurred.

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#### PEOPLE v. PHILLIPS.

(Opinion filed Sept. 17, 1902.)

Food—Adulteration—Statutes—Oleomargarine—Yellow Butter.

1. The phrase "yellow butter," is used in Act No. 22, Acts 1901, making it an offense to sell or offer for sale oleomargarine colored in imitation of "yellow butter" made from pure milk or cream, of the same, means any butter produced from pure milk or cream thereof having a "perceptible shade" of yellow.

Error to circuit court, Kalamazoo county; John W. Adams, judge.

John W. Phillips was convicted of selling oleomargarine, in violation of Act No. 22, Acts 1901, and he brings error. Affirmed.

Frank E. Knappen and E. M. Irish, for appellant.

Sheridan F. Master, Prosecuting Attorney, and Dallas Boudeman, for the people.

Moore, J.: The respondent was convicted of having on hand with intent to sell, and offering for sale oleomargarine, colored in imitation of yellow butter, contrary to the provisions of Act No. 22 of the legislature, passed at the session of 1901.

It is claimed by respondent this law is unconstitutional and is an invalid law. That question was decided in the very recent case of *People v. Rotter*, against the contention of respondent, and need not be discussed here. It is urged as a matter of defense, and we quote from the brief of counsel, "that the statute is only aimed against the imitation of a substance which the legislature recognizes as yellow butter, and

1. The court should take judicial notice that all butter with a trace of yellow in it is not the yellow butter of commerce.

2. That if this is not true as a proposition of judicial notice, and the court cannot know it, then the respondent should have been allowed to prove, if he could, that there was such a usage of commerce.

3. That the statute is vague and indefinite in not defining the elements of the statutory crime it attempts to carve out of an act innocent per se, in that it gives no standard for determining what the color of yellow butter is that is not to be imitated."

The trial judge charged the jury upon that branch of the case as follows:

"It is not necessary in this case for the people to have proved that the respondent himself colored the oleomargarine if you find beyond a reasonable doubt that it was colored. The offense is just as complete, so far as this is concerned, if the respondent purchased oleomargarine colored, as above indicated. The offense as above stated consists of having the oleomargarine colored as before indicated, in his possession, with intent to sell the same, or in exposing it for sale; and if the respondent sold it in the same condition as he bought it, there would be no defense in this case. The respondent, gentlemen of the jury, is not charged in this information with selling this article; and if you find beyond a reasonable doubt he sold it as claimed by the people in the testimony offered, you may consider this fact on the question of whether respondent had or did not have the article in his possession for the purpose of selling it. And you must not consider it for any other purpose. If you find beyond a reasonable doubt that respondent did sell the article mentioned in the information to the parties claimed by the people, that would satisfy the statute upon the question of intent to sell. It is not necessary in this case to entitle the people to a conviction, that the oleomargarine should have been colored to represent any particular kind of yellow butter. That is, such yellow butter as the statute mentions, and as I have indicated to you the statute mentions. If the coloring was put into it, and by using such coloring the oleomargarine was in imitation of light yellow butter, such as the statute mentions, that is yellow butter produced from pure, unadulterated milk or cream from the same, the offense is committed just the same, as if it had been colored to represent darker yellow butter. If you find it to have been oleomargarine and was colored in such a manner as to be in imitation of any kind of yellow butter, that would satisfy the statute upon the requirement of the question of color. Yellow butter I define to be any butter produced from pure, unadulterated milk or cream of the same having a yellow color.

"It is necessary in order for the jury to convict the respondent, for you to find beyond all reasonable doubt that the article in the package sold was colored in imitation of yellow butter produced from pure, unadulterated milk or cream of the same. If you find beyond a reasonable doubt under the testimony in this case that there was some coloring matter in this article still if you find that there was not enough coloring matter in this article to cause it to look like yellow butter having a perceptible shade of yellow, said butter having been produced from unadulterated milk or cream from the same, then you must acquit. But if you find beyond a reasonable doubt there was coloring matter in said article and

sufficient coloring matter in said article and sufficient coloring matter therein to make it look like yellow butter, having any perceptible shade of yellow. said butter having been made from unadulterated milk or cream from the same, that would be sufficient so far as the requirement of the statute upon the question of coloration is concerned."

We think this was a proper construction of the language used in the statute.

The conviction is affirmed and the case remanded for further proceedings.

Long, J., did not sit. The other justices concurred.

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PEOPLE v. JENNINGS.

(Opinion filed April 7, 1903.)

Adulteration of Food—Omission of Ingredients—Coloring Matter—Remarks of Court.

1. There not having been incorporated in the pure food law of 1895 (Public Acts of 1895, p. 358, No. 193), any specific formula for the manufacture of lemon extract, it is proper to resort to the United States Pharmacopoeia formula to determine of what lemon extract consists.
2. The pure food law of 1895 (Public Acts of 1895, p. 358, No. 193), is not intended to prevent manufacturers of articles of food from improving the same, so long as no infringement of the law or spirit of the act defining adulteration takes place.
3. The provisions of Comp. Laws, Sec. 5012, that an article shall be deemed adulterated, "second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it"—should be read together, and the provision first recited construed as prohibiting the substitution for an essential ingredient of any cheaper or inferior substances.
4. Comp. Laws, Sec. 5012, declaring that an article shall be deemed adulterated, "sixth, if it is colored \* \* \* whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is," does not preclude the use of coloring matter not injurious to health in any way.
5. It is improper for the court to refer to expert testimony as "boughten testimony."

Exceptions from circuit court, Muskegon county; Fred J. Russell, judge.

Charles W. Jennings was convicted of violating the pure food law, and brings exceptions. Reversed.

Charles A. Blair, Attorney General, and Charles B. Cross, Prosecuting Attorney, (Cross, Lovelace and Ross, of counsel), for the people.

Knappen, Kleinhans & Knappen and L. N. Keating, for defendant.

Montgomery, J. This is a prosecution under the Pure Food Law,

so called. The defendant was convicted under an information charging him with selling a compound as a lemon extract which was adulterated within the meaning of Act No. 193, P. A. 1895, and was a compound in imitation of extract of lemon. The respondent was convicted and brings the case up on exceptions before sentence.

The evidence on the trial introduced by the defendant tended to show that lemon oil contains from three to ten per cent citral, so called, and upwards of ninety per cent of so called turpenes; that these turpenes represent the oil property; that they are in reality the oil itself freed from the citral; that citral is the principal flavoring and odor-bearing property of lemon oil; that the tendency of turpenes in the oil of lemon is to deteriorate or become rancid by long standing, and that because of this the extract of spirits of lemon in which turpenes appear in usual quantities become turpentiney, both in smell and taste, and that for this reason it is undesirable to have turpenes present; that the turpenes have a biting taste, easily developing a turpentine taste, not the true flavor of the lemon fruit. There was also testimony tending to show that this fact created a demand for turpeneless oils and that turpeneless lemon oils had been manufactured and sold commercially for a considerable time.

On the part of the prosecution the testimony of the chemist of the Pure Food Department was to the effect that taking as a standard of extract of lemon the spirits of lemon as defined by the United States Pharmacopoeia formula that the extract produced by the respondent showed no lemon oil present. It further appears that spirits of lemon made according to the pharmacopoeia formula would contain from 25-100 to 35-100 of one per cent of citral. It also appeared that 30 per cent of alcohol appeared in the product made by respondent, and that according to the pharmacopoeia formula 80 per cent was used, and that it cost less to make the extract using but 30 per cent of alcohol than if 80 per cent was used. It was also shown that a trace of coal tar dye was found in the extract made by respondent, but it was conceded that there was nothing whatever injurious in the extract as prepared by Mr. Jennings. The extract sold by respondent was made by what is known as the shaking out process, the purpose being to make an extract that contains no oil and as little alcohol as possible, a product that simply contains the flavoring properties of the lemon oil without the turpenes. This system has been employed by Mr. Jennings and by other manufacturers for the past three years; and it is claimed that all the elements and properties of lemon oil remained except the turpenes, and the testimony tended to show that the complete flavoring qualities are extracted by this process.

The circuit judge charged the jury as follows:

"In 1895 the Legislature of this State, thought it wise to pass a law relative to the adulterations of food and food products. Perhaps there may have been some amendments since that time, but that was the foundation of the law. That law covers lemon extract as it covers all other products that are sold on the market. It seems at the time the law was passed and since that time there hasn't been—there isn't incorporated within that law any special formula for the manufacture of lemon extract. Now, we can hardly say, gentlemen of the jury, that at the time of the passage of that law that the Legislature didn't have some recognized and defined standard by which these essences or extracts should

be governed or controlled. I think it would be hardly fair to the Legislature to claim that there wasn't a standard they had in their mind at that time, and for the purposes of this case I will instruct you gentlemen, that at that time and at this time this standard that appears here in the United States Pharmacopoeia is the standard recognized by the legislators of this State and the one to which—the one that is in force so far as it applies to the Pure Food Law of this State with reference to that particular product. And if this lemon extract is manufactured in conflict with that formula as I shall hereafter call your attention to it, and you should find from the evidence, why it would be your duty to convict the defendant here.

"By that formula it appears that it is necessary to have five per cent of lemon oil in the lemon extract and that lemon oil shall be cut by a sufficient quantity of alcohol to perform that act. Of course, you know that that means in common parlance it should dissolve the oil. In addition to that, as the evidence tends to show in this case, after those things are put together, the fluid, whatever it might be, would be nearly the color of water. As coloring there may be or should be five per cent of lemon rind, and those ingredients when added together would be lemon extract, and that, gentlemen, will be the standard as applied to the Pure Food Law of this State. Now, gentlemen, I don't mean by that statement that lemon extract cannot be manufactured by any other process except by that to which I have called your attention. I don't mean that. It is the claim of the defendant here that he has discovered a process by which he can manufacture lemon extract containing all of the qualities that lemon extract manufactured according to that formula would possess and not have entirely all of the ingredients in the first instance that are provided in the formula. And as I view this case, gentlemen, that is one of the important propositions in connection with this case—that, and the question of coloring—in the judgment of the court is the case, and that all of the testimony in the case here revolves itself about those two propositions.

"It is the claim of the defendant, as I say, he has discovered a process by which he can produce in this lemon extract all the qualities that would be produced by adding alcohol and lemon oil together, and that manufacturing it by that means he produces it chemically by taking a larger quantity of lemon oil and extracting certain parts of it. Now, gentlemen, if you find and are satisfied by the evidence in this case that after this lemon extract was manufactured as defendant here claims he did manufacture it possesses all the qualities in strength and otherwise that it would possess if manufactured according to this formula, he is not guilty under this law. That is, he is not guilty of manufacturing an impure article, unless there are certain other articles that enter into the case to which I call your attention. As I say, in the first instance, it is claimed that according to the formula it should be alcohol and five per cent of lemon oil. Now if by some other process he can manufacture from the lemon oil and alcohol a product that would contain all of the elements that these two elements would contain if so mixed, he would not be guilty so far that would be lemon extract except the color of it.

"It is conceded here by all parties in interest, I think, that the only object of the lemon peel is to produce coloring. But there is another element to which the prosecuting attorney has called our attention. The evidence tends to show, gentlemen, that if this product is produced as claimed here on the part of the defendant, that after production by this process that the product will be nearly white. As I say, if it contained all of the elements of lemon extract, I don't think he would be guilty under this law, and if you are so satisfied, of course, at that point it would be your duty to find a verdict of not guilty unless there is some other matter in which he has violated this law.

"There is another provision of this Pure Food Law that provides that ingredients shall not be colored. In this case it appears that after this fluid substance is produced which he claims is just the same as produced under this formula, that he desires to change it to a lemon color. In other words, he puts in an ingredient which he claims would produce the same effect as this lemon rind. What is the object, gentlemen, or what was the object of Mr. Jennings adding this color? If the object was by any means to make it appear better or of greater value than it really is; if that was the object in adding that product, of course it is your duty without any question to find this defendant guilty, because he hadn't any right to add that kind of a product or any other kind of a product to this

fluid which he had produced and sell it for lemon extract, because that is a direct violation of one of the provisions of this Pure Food Law."

We think this charge presents fairly three questions for consideration: First, whether the pharmacopoeia formula is to be considered as defining lemon extract; second, if so, whether an omission of ingredients not essential to its purposes as a food product is a violation of the statute; third, whether the instruction relative to the addition of coloring matter should be sustained.

The statute defining what shall be deemed adulteration, so far as it relates to this case, declares that an article shall be deemed adulterated when: "First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it; fourth, if it is in imitation of, or is sold under the name of another article; \* \* \* sixth, if it is colored, coated, polished or powdered whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous or injurious to health." Compiled Laws, Sec. 5012.

We are agreed with the circuit judge that in referring to articles of food and to protect the users thereof the legislature must have had in view some standard, and as lemon essence or lemon extract had therefore acquired a well-defined meaning we incline to the view that it is proper to resort to the pharmacopoeia formula for the purpose of determining what lemon extract consists of. Does it follow from this that the legislature intended to prohibit improvement in the manufacture of lemon extract? If a means should be discovered by which a larger percentage of the flavoring quantity of the lemon might be extracted would it be an infraction of this law that the manufacturer should use such larger proportion of the essential ingredient of the lemon extract? We think not. We think it is open to manufacturers to improve a common article of food so long as no infringement of the law or spirit of the act defining what shall be deemed adulteration takes place. According to the proofs offered by the defendant it is very clear in the present case no substance or substances have been mixed with this extract so as to lower or depreciate or injuriously affect its quality, strength or purity.

As to the second condition which amounts to adulteration the case is not so clear. This provides that if any inferior or cheaper substance or substances have been substituted wholly or in part for it, that it shall amount to adulteration. We think, however, this provision should be read in connection with the succeeding one, to-wit: "If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it." So construed the provision prohibiting the substitution of any inferior or cheaper substance, wholly or in part, for it means the substitution for an essential ingredient of such cheaper or inferior substance. Now if it be a fact, as the testimony on the part of the respondent tends to show, that it is a positive advantage to

exclude the turpene wholly from the extract and to lessen the quantity of alcohol used, then the essential ingredients of lemon extract have not had substituted for them anything inferior or cheaper. We are aware that this view of the law may make it more difficult to establish the individual case, but as the statute is a penal statute it should receive a strict construction.

It follows from the views above expressed that the instruction of the learned circuit judge was erroneous inasmuch as the jury were told in effect that if any ingredient of lemon essence as defined by the pharmacopoeia was wanting in this extract sold by the respondent that there should be a conviction. We think the instruction should have been that if the lemon extract sold by respondent contained all the ingredients and in quantities such as prescribed by the pharmacopoeia which are adapted to use as food, and that nothing was eliminated except such ingredients as could be dispensed with without injury to the product as a food product there was no violation of the statute.

The only other provision of the statute involved is the sixth, which in effect prohibits coloring the article produced whereby damage or inferiority is concealed. The instruction upon this branch of the law was also erroneous if we are correct in our view of the main question. The elimination of non-essential ingredients from the extract certainly does not show damage or inferiority, and as the conceded facts are that the coloring matter employed was not injurious to health in any way this provision has no application.

The other questions discussed do not require special mention. It may be noted in passing that the circuit judge in referring to the testimony of expert witnesses spoke of it as boughten testimony. We think this expression was unfortunate. While it is proper for the jury to take into account the fact that expert witnesses are employed at an extra compensation paid them, the implication that the extra compensation necessarily amounts to a purchase of their testimony is hardly warranted; while the jury may consider this fact as bearing on their credibility, it is not proper that the court should intimate an opinion of that character.

The judgment should be reversed, and a new trial ordered.

The other justices concurred.

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BENNETT v. CARR.

(Opinion filed July 14, 1903.)

Pure Food Law, Act 22, P. A. 1901, Construed—Sale of Yellow Oleomargarine.

Act No. 22 of the Public Acts of 1901 prohibiting the sale of oleomargarine except where it is "free from coloration or ingredient that causes it to look like butter," does not prohibit the sale of oleomargarine whose color is natural, genuine, and not an imitation, and the ingredients themselves naturally produce the color.

The term "ingredient," used in Act 22, Public Acts of 1901, does not refer to the ingredients essential to produce the article as defined by the legislature, but to an ingredient used to produce color.

Certiorari to the Circuit Court for Muskegon county, Fred J. Russell, judge to review an order denying the petition of John R. Bennett for mandamus to compel John M. Carr to issue a warrant. Order affirmed.

Charles A. Blair, Attorney General, and Cross, Lovelace and Ross, for relator and appellant.

Smith, Nims, Hoyt and Erwin for defendant and appellee.

Grant, J.: Relator is the inspector of the State Food and Dairy Department. On the 24th day of February, 1903, he made complaint before the defendant, a justice of the peace of the county of Muskegon, charging one Martin Aamondt with having sold one pound of oleomargarine contrary to Act No. 22 of the Public Acts of 1901. The respondent refused to entertain the complaint and issue warrant, on the ground that the complaint stated no offense under the provisions of said act, and that said act is unconstitutional and void. Relator thereupon applied to the circuit court for the county of Muskegon for the writ of mandamus to compel the respondent to issue said warrant, and proceed with the examination. The circuit court sustained the action of the respondent, and the case is now before us for review upon certiorari.

The statute in question reads as follows:

"Section 1. No person, by himself or his agents, or servants, shall render or manufacture, sell, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or in part out of any fat, oil, or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same: Provided, That nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form, and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter." The complaint charges Mr. Aamondt with unlawfully selling one pound of oleomargarine "made wholly or in part of fat, oil or oleaginous substance or compound thereof, as follows, to wit:

Water .....	11.75 per cent
Butter fat .....	1.34 per cent
Beef fat, lard and cottonseed oil.....	79.24 per cent
Salt and other mineral matter.....	4.54 per cent
Curd .....	3.13 per cent

Said article, product or compound not being then and there butter produced from unadulterated milk or cream from the same, and being then and there in imitation of yellow butter produced from unadulterated milk or cream from the same, and not being then and there oleomargarine in a separate and distinct form and in such manner as would advise the consumer of its real character, free from coloration or ingredient that would cause it to look like butter, but that the said oleomargarine was then and there of a yellow color in imitation of butter, said color not being then and there produced by the addition of any artificial coloring matter, but said color being produced solely by the said ingredients therein contained, the said ingredients hereinbefore set forth, having been selected and used in the manufacture of said oleomargarine in such manner and in such quantities and proportion as to produce



the oleomargarine that was then and there in imitation of yellow butter produced from unadulterated milk or cream from the same, contrary to the form of the statute," etc.

The oleomargarine so purchased was manufactured in the city of Chicago, State of Illinois, by one Moxley, a resident of said city, and was sold by said Moxley to said Aamondt in the usual course of trade, and by said Aamondt was sold in the usual course of retail trade, in the same form and condition, and in the original package, in which it was received by Aamondt from Moxley.

It is conceded that this oleomargarine has a yellow color similar to butter, but the color is not produced by any artificial coloring substance or ingredient used for the purpose of coloration, but is produced solely by the selection and use, in proper proportions, of the substantial, recognized, legal and necessary ingredients of commercial oleomargarine.

Does the complaint state an offense covered by the statute? The answer depends upon the construction to be given to the statute. The relator contends that the statute covers all products which look like yellow butter, and that it is immaterial whether such color is produced by some ingredient introduced for the purpose of causing the product to look like butter, or whether such color is produced by authorized and legal constituent food ingredients. The respondent contends that the statute is aimed only at the use of ingredients used solely for the purpose of producing the yellow color, and does not prevent the manufacture of an article whose color is natural, genuine and not an imitation. Penal statutes must be construed strictly and cannot be extended by construction beyond the intent of the act as expressed on its face. The conditions existing at the time the statute was enacted, and the mischief to be remedied, are important factors in construing penal statutes. Two acts covering the same subject must be construed as in *pari materia*, and, if possible, effect given to both. These are elementary rules of construction. At the time the statute in question was enacted the only method in use in causing oleomargarine to look like yellow butter was the introduction of some extraneous coloring matter. This was the mischief to be remedied. We clearly so understood in *People v. Rotter*, 9 D. L. N. 284; 91 N. W. Rep. 167, where, speaking through Chief Justice Hooker, we said of this statute: "The statute under consideration \* \* \* does not prohibit sales of oleomargarine which is not tainted with the prohibited ingredient."

See also *People v. Phillips*, 9 Id. 393; 91 N. W. Rep. 616.

The legislature has defined oleomargarine which may be manufactured and sold in this State. Sec. 6, Act No. 147, Public Acts of 1899. It is conceded that the respondent has complied with this act. If we give the enlarged construction to the statute now in question, as urged by the relator, it follows that the legislature has prohibited the manufacture and sale of a valuable article of food, the natural color of which resembles yellow butter (itself almost universally colored by extraneous matter). The manufacturer of such a product, if he sold it at all, would be compelled to introduce some coloring matter so as to make it look unlike the yellow butter of commerce. These two statutes must be construed together. The article sold by the respondent is clearly au-

thorized by the first act. The latter act does not in terms prohibit its sale and manufacture. It does prohibit the use of any substance for the sole purpose of producing yellow color. The use of such coloring matter was the sole mischief then known to exist, and the only danger to be apprehended and guarded against.

A similar statute was passed in New Jersey, and the like contention was made to support a conviction, and the court said: "To construe the statute so broadly would render it practically prohibitive of the sale of all oleomargarine; for, of course, the compound must derive color from its ingredients, and such a prohibition has manifestly not been declared."

*Ammon v. Newton*, 14 At. Rep. 610; 50 N. J. 548.

*McCann v. Commonwealth*, 48 At. Rep. 470; 198 P. A. St. 509.

Our statute is copied verbatim from that of Massachusetts. The Supreme Court of that State, in a case just decided, has held that the statute applies only to extraneous substances or ingredients which cause the product to look like butter, and not to cases where the ingredients themselves naturally produce the color.

*Commonwealth v. Himberg*, ————.

The Supreme Court of the United States so held in regard to the same statute.

*Plumley v. Commonwealth*, 155 U. S. 461.

The term "ingredient," used in the statute, does not refer to the ingredients essential to produce the article as defined by the legislature, but to an ingredient used to produce color. The maxim *noscitur a sociis* applies.

Under this disposition of the case it becomes unnecessary to discuss any constitutional question.

The order is affirmed.

The other justices concurred.

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#### PEOPLE v. HARRIS.

(Opinion filed December 1, 1903.)

Food—Corn Syrups—Glucose.

1. Public Acts 1903, No. 123 forbids the sale of cane syrup or beet syrup mixed with glucose, unless the package containing the same be distinctly branded "Glucose Mixture" or "Corn Syrup," with the name and percentage of each ingredient contained therein plainly stamped thereon. Held, That a sale of syrup made of 90 per cent pure corn syrup and 10 per cent cane syrup, labeled "Victor Corn Syrup," and truthfully stating the ingredients composing it, is not in violation of the statute, in that it is not branded "Glucose, 90 per cent, and cane syrup 10 per cent."

Exceptions from circuit court, Kent county; Willis B. Perkins, judge.

Benjamin S. Harris was convicted of violating the "Act in relation to the sale of corn syrup" and brings exceptions. Reversed.

Respondent was prosecuted and convicted for a violation of Act No. 123 of the Public Acts of 1903, entitled "An act in relation to the sale of corn syrup," and reading as follows:

"Sec. 1. No person shall offer or expose for sale, have in his possession with intent to sell, any cane syrup, beet syrup, or glucose, unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled with the true and appropriate name; nor shall any person offer or expose for sale, have in his possession with intent to sell, or sell any cane syrup or beet syrup mixed with glucose unless the barrel, cask, keg, can, pail or package containing the same be distinctly branded or labeled 'Glucose Mixture' or 'Corn Syrup' in plain Gothic type not less than three-eighths of an inch square, with the name and percentage by weight of each ingredient contained therein plainly stamped, branded or stenciled on each package in plain Gothic letters not less than one-quarter of an inch square. Each and every package of syrup either simple or mixed shall bear the name and address of the manufacturer. Such mixture or syrups shall have no other designation or brand than herein required that represents or is the name of any article which contains a saccharine substance; and all brands or labels required shall be an inseparable part of the general or distinguishing label, and that the general or distinguishing label shall be that principal and conspicuous sign under which it is sold.

"Sec. 2. Whoever shall do any of the acts or things prohibited, or neglect or refuse to do any of the acts or things required by this act or in any way violate any of the provisions, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than ninety days, or by both such fine and imprisonment in the discretion of the court."

The complaint charges him with the unlawful sale of "a two-pound can, two pounds, of a certain article, product and compound, to wit: corn syrup, so-called, made wholly or in part of cane syrup and glucose as follows, to wit: Cane syrup ten per cent, and glucose ninety per cent, said can containing said article, product and compound sold as aforesaid not being then and there stamped, branded or stenciled with the name and percentage by weight of each ingredient contained therein, to wit: Cane syrup ten per cent, glucose ninety per cent; but said article, product and compound sold as aforesaid was then and there stamped and branded as follows, to wit: 'Cane syrup ten per cent, corn syrup ninety per cent,' against the form of the statute in such case made and provided, and against the peace and dignity of the people of the State of Michigan."

Respondent moved to quash the complaint and warrant for two reasons: (1) they charged no offense; (2) the act authorizes the use of the words "Corn Syrup," instead of Glucose in the statement of the ingredients placed upon the can. The motion was overruled and the case proceeded to trial upon the following agreed facts:

1. The respondent sold on October 12, 1903, at the city of Grand Rapids, Michigan, the can of Victor Corn Syrup in question.

2. The label on said can of syrup sold, as stated in the complaint, contains the formula of contents of said can as follows: "Corn syrup, ninety per cent; cane syrup, ten per cent;" and is not branded or labeled as the people claim it should be, "Glucose, ninety per cent; Cane syrup, ten per cent."

3. The Victor Corn Syrup in question is in fact composed of ninety per cent syrup made from corn, commercially called Glucose or Corn Syrup, and ten per cent of cane syrup.

4. Glucose contained in the Victor Corn Syrup in question is in fact a pure syrup made entirely from corn.

5. Grape Sugar, commercially known as Glucose, either solid or liquid, is a generic name for starch sugar as distinguished from the cane sugar.

6. A simple beet syrup is evidently the same as the simple cane syrup.

7. Originally, Glucose, which was first made from grapes, was, for the reason that starch sugars are identical with the sweet principle of grapes, termed, for a great many years, and until lately was known chemically and commercially as Grape Sugar.

8. Commercially, Glucose is now made in this country entirely from corn, although abroad it is still made from potatoes.

9. The consuming public does not understand that Glucose is a syrup made entirely from corn. On the contrary, it is claimed by the respondent that the public generally supposes Glucose to be an inferior product made from animal fat, or a product of the glue factory, while they do recognize corn syrup as being made from corn.

10. Glucose as made from corn and contained in Victor Corn Syrup in question, is entirely harmless and recognized generally by highest authorities as a valuable food product.

11. Glucose made from corn, in fact, costs, at the present time, owing partially to cost of raw material, more to produce, and sells for more in the markets, than manufactured cane syrup.

The court directed a verdict of guilty.

Grant, J.: Does the statute require respondent or manufacturers to state upon their labels that corn syrup consists of ninety per cent glucose? No such statute has come under the decision of other courts. It is a new question, and must be determined upon general principles of construction.

It is conceded that the label states the exact facts; that the article is made of ninety per cent pure corn syrup and ten per cent cane syrup; that it deceives no one; that Victor Corn Syrup is a valuable and pure article of food, and that the ingredient ninety per cent corn syrup "is entirely harmless, and recognized generally by the highest authority as a valuable food product," whether it be called glucose or corn syrup. The term "Glucose" is obnoxious to many, if not a majority, of the public, and is misunderstood by them. They do not know that in this country glucose is now made entirely from corn, and that the terms glucose and corn syrup are commercially synonymous. This fact is known to the manufacturers and perhaps the dealers. A prejudice exists against the term "glucose" because that material can be manufactured from many substances, including sawdust. In Europe it is made mainly of potatoes. By many it is associated with a glue factory. In this country corn syrup and glucose are not only commercially synonymous terms, but it is stated by counsel for respondent that they are permitted to be so used in all the other states. We have not verified this statement, but as it is not challenged we assume it to be correct.

We have, therefore, a valuable and healthful product, made from two pure, valuable and healthful ingredients, advertised and placed upon

the markets for what it really is, without any deception, fraud or chance to injure the public in any way. Yet the contention on behalf of the people is that the legislature has enacted that in putting this product upon the market its manufacturers and sellers must attach to it a name obnoxious to the public, and, in fact, calculated to deceive them. When it is claimed that such innocent acts are made *malum prohibitum*, there must be either an express provision of the statute so declaring, or the language of the statute must leave no other conclusion reasonable. This statute does not expressly require it.

The argument on behalf of the people is "that glucose made from corn is glucose, the simple syrup mentioned in and intended to be mentioned in said act." The further claim is "that had there been any intention on the part of the legislature to use the terms 'glucose' and 'corn syrup' interchangeably and as synonymous then the term 'corn syrup' would have been enumerated as one of the simple syrups." We do not think this reasoning at all conclusive. Prior to the enactment of this statute the law prohibited the sale of molasses, syrup or glucose unless distinctly branded or labeled with its true and appropriate name,—or any mixture thereof, unless it was branded or labeled "glucose mixture," and the per cent in which glucose entered into its composition. C. L., sec. 5024. The present act which repeals the provisions of the former act expressly permits the mixture to be labeled "glucose mixture," or "corn syrup," and forbids mixtures or syrups to have any other designation than required in the act so far as such designation "represents or is the name of any article which contains saccharine substance." It is a fair presumption that the legislature, in enacting this law, recognized the obnoxious character of the term "glucose" among the people, and permitted, and intended to permit, a mixture of corn syrup and cane syrup to be sold under the name of Corn Syrup. The title to the act provides for the sale of corn syrup, and in its body provides that when cane syrup is mixed with it, the manufacturers and dealers shall state the proportionate ingredients. The smaller amount of cane syrup used does not change the character of the general product, any more than salt changes the character of bread, or, sugar that of cake, and the act permits the sale of the mixture as corn syrup. Syrup, as defined by the United States Department of Agriculture, "is the product obtained by purifying and evaporating the juice of a sugar producing plant without removing any of the sugar." Syrup thus obtained from cane is cane syrup; syrup so obtained from sorghum is sorghum syrup, and syrup so obtained from corn is corn syrup. There is no reason why corn syrup should be labeled glucose, and until the legislature have so ordered in language susceptible of no other construction, the law must be held not to bear that construction.

Conviction reversed, and respondent discharged.

Hooker, C. J., took no part in the decision. The other justices concurred.

## PEOPLE v. HINSHAW.

(Opinion filed January 5, 1904.)

Pure Food Law—Adulterated with Harmless Ingredients—Act 193, P. A. 1895, construed.

The coloration of "Extract of Vanilla" with any substance to give it the appearance of greater strength is a violation of the pure food law, even though such coloring matter is harmless.

Act 193, P. A. 1895, as amended by Act 118, P. A. 1897, held constitutional.

Error to the circuit court for Saginaw county; B. A. Snow, judge.

Appeal of Emory H. Hinshaw from a conviction under the pure food law. Affirmed.

Charles A. Blair, Attorney General, and Frank A. Rockwith, Jr., and C. M. Browne, for the people.

Eugene Wilber for respondent and appellant.

Respondent was prosecuted and convicted of the unlawful sale of "Extract of Vanilla, which was then and there adulterated within the meaning of act number 193 of the Public Acts of the State of Michigan of the year 1895, as amended by act number 118 of the Public Acts of 1897, in this, to wit: That said Extract of Vanilla was colored by the addition of a foreign coloring matter, to wit: coal tar dye, whereby its inferiority was concealed, and whereby said Extract of Vanilla was made to appear better and of greater value than it really was."

Two errors are assigned.—(1) that the court erred in instructing the jury; (2) that the act is unconstitutional as repugnant to the Fourteenth Amendment of the Constitution of the United States.

Grant, J.: 1. The instruction complained of is as follows:

"Now before the inferiority of an article can be concealed it must be necessarily first ascertained as to whether or not there is an inferiority in the article. If it is an inferior article and that inferiority is concealed by reason of the addition of foreign substance in this vanilla, and you are satisfied from the proof beyond a reasonable doubt of the fact, then he would be guilty, although he had no knowledge as to the foreign substance being in the bottle."

It appears that no such claim was made on behalf of respondent upon the trial; no request was asked covering the points now raised. The only objections shown by the record to have been made are,—first, that the title is not broad enough to cover the provisions in the amendment of 1897; second, that the legislature has no power to prohibit and punish acts in themselves harmless; third, that the act is unconstitutional.

Even in criminal cases it is the duty of counsel to call the attention of the court to the points on which an instruction is desired. *People v. Ezzo*, 104 Mich. 311.

We, however, are of the opinion that the information charges the coloration to make an inferior article appear better and more valuable

than it really was, and is sufficient; and also that there was evidence to sustain the allegation. The State Chemist testified that the effect of the coal tar dye was to make the article appear of greater value than it really is, and that the people would think it stronger than it really was. It is true, his testimony was weakened by cross-examination, but not sufficient to take the question from the jury,—especially in view of the fact that no other purpose than to make the article appear better, is shown.

2. The use of coal tar dye being harmless, counsel for respondent insists that the case comes within the rule of the recent case of *People v. Jennings*, 94 N. W. R. 216; 10 D. L. N. 39. That case had not been decided when this case was tried. No such theory was advanced upon the trial. Even if it were, we, however, think the case is clearly distinguishable from *People v. Jennings*. The color given to lemon extract, which of itself is almost colorless, is no indication whatever of the strength of the extract or its value. Its color is a mere whim or caprice of the trade, and no more indicates the character and value of the extract than does the coloring matter, used to color butter, indicate its character and value. In this case Vanilla resembles the color of the bean from which it is produced. Its strength and value are judged to some extent at least, under the evidence in this case, from its color. No other object is apparent from the use of the coloring than to make it appear of a quality better than it really is.

3. It is urged that the act is unconstitutional on account of the proviso "that nothing in this act shall prevent the coloring of pure butter." This act is similar in its provisions to that involved in *People v. Rotter*, 91 N. W. R. 167; and *People v. Phillips*, Id. 616. The constitutionality of such acts was there sustained, and a discussion is unnecessary. *Capital City Dairy Co. v. Ohio*, 183 U. S. 238, 246, is decisive of the question.

The conviction is affirmed.

The other justices concurred.

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The Pratt Food Company,

v.

Arthur C. Bird, Dairy and Food

Commissioner of the State of Michigan.

Montgomery, J.: The bill in this case is filed to restrain the defendant, his clerks and employes, from writing, printing, issuing, publishing or sending out any bulletin, writing, publication or notice, to the effect that complainant's preparations sold as Pratt's Food for Horses and Cattle, Pratt's Poultry Food, and Pratt's Animal Regulator, or either of them, are not licensed under Act No. 12 of the Laws of 1905, and warning the public against buying or selling these preparations.

The bill sets out that the defendant asserts and claims that these preparations come within the terms of the act, and that unless restrained by injunction he will so assert by bulletins issued to the trade, and by this

method intimidate dealers and prevent their purchasing complainant's products. (We are stating simply the substance of the averments in brief.) It is also asserted that the effect of such bulletins will be to destroy and ruin the complainant's trade and work irreparable injury.

Upon the hearing below the bill was dismissed, and the complainant appeals. Three questions are presented upon the record, first, whether in view of the case complainant is entitled to the remedy here invoked; second, whether Act No. 12 of the Public Acts of 1905 is constitutional; third, whether if it be constitutional the complainant's products come within the terms of the statute.

1. The statute in question is an amendment of Act No. 211 of the Public Acts of 1893, entitled "An act to provide for the appointment of a Dairy and Food Commissioner, and to define his powers and duties and fix his compensation," and by section 18 of the act it is provided that "Any manufacturer, company, person or persons who shall sell, offer or expose for sale or for distribution, in this State, any concentrated commercial feeding stuff used for feeding live stock, shall furnish with each car, or other amounts shipped in bulk, and shall affix to every package of such feeding stuff, in a conspicuous place, on the outside thereof, a plainly printed statement, clearly and truly certifying the number of net pounds in the car or package sold or offered for sale, the name or trade mark under which the article is sold, the name of the manufacturer or shipper, the place of manufacture, the place of business, and a chemical analysis, stating the percentages it contains of crude protein, crude fibre, nitrogen—free extract and ether extract, all constituents to be determined by the methods adopted by the association of official agricultural chemists. Whenever any feeding stuff is sold at retail, in bulk or in packages belonging to the purchaser, the agent or dealer shall furnish to him a certified copy of the chemical analysis named in this section. The term concentrated commercial feeding stuffs as used in this act shall include linseed meal, cotton seed meal, pea meals, cocoanut meals, gluten meals, oil meals, of all kinds, gluten feeds, maize feeds, starch feeds mixed sugar feeds hominy feeds, rice meals, oat feeds, corn and oat feeds, meat meals, dried blood, clover meals, mixed feeds of all kinds, slaughter house waste products; also all condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended for feeding to domestic animals. \* \* \* A penalty is provided for the violation of this provision.

It is strenuously insisted by the Attorney General that if it be conceded that the complainant's products do not come within the inhibition of this statute, yet no remedy by injunction exists, for the reason that the effect of issuing an injunction is to restrain the prosecution of a criminal proceeding. Numerous cases are cited, among them *Arbuckle v. Blackburn*, 113 Fed. Rep. 625; *State v. Wood*, 155 Mo. 425, and *Predigested Food Co. v. McNeal*, 1 Oh. N. P. 266.

In so far as these cases lay down the rule that a court of equity will not interfere to restrain a public officer from invoking the criminal law and instituting a prosecution for a violation of a statute they have our full approval. A court of equity will not transfer to its own jurisdiction the trial of a criminal case, and this though the prosecution may fall



with some hardship upon the accused party. Nor, as a general proposition, will a court interfere to restrain the publication of a libel.

But we hold in *Beck v. Railway Teamsters' Protective Union*, 118 Mich. 497, that injunction will lie to restrain a combination of persons from acts which tend to ruin complainant's business by bringing to bear upon his customers intimidating and coercive means. The principle which should rule the present case is identical. If the acts which are threatened are unlawful it cannot be doubted that placing in the hands of every dealer in the State a bulletin which in effect threatens them with prosecution in case they make use of these products in the form in which they are lawfully sold to them would be to absolutely exclude complainant's business from the State. The case presented is very similar in this aspect to that of *American School of Magnetic Healing v. McAnnulty*, 187 U. S. 94, which case involved the right of the Postmaster General to exclude the complainants from the use of the United States mails. An order had been made excluding complainants from the use of the mails. The court interfered and held that such order was a violation of the property rights of the persons affected and granted relief.

2. Is the law constitutional?

It is claimed that the law is unconstitutional in that it violates Section 20 of Article IV of the constitution, which provides that no law shall embrace more than one object, which shall be expressed in its title.

It is established by our decisions that if what is introduced by way of an amendment to an act might have been incorporated in the act under the original title there is no violation of this section. *People v. Gadoway*, 61 Mich. 285; *Attorney General v. Bolger*, 128 Mich. 355.

The question is therefore whether under the original title a provision fixing a standard of pure food and providing means to prevent deception in the sale of such food is within the title of an act to provide for the appointment of a Dairy and Food Commissioner and to define his powers and duties and fix his compensation. We think the title is within our previous decisions sufficient. It is obvious to one reading this title that there must have been imposed upon the commissioner certain powers and duties to make his Department of any value to the State, and furthermore that these powers and duties must have relation to something. It is equally obvious that the relation of these powers and duties must be to the subject which is brought within the Department that is created, viz., the Dairy and Food Department.

The title is very similar to that which established the Insurance Bureau. In *Connecticut Mutual Life Ins. Co. v. State Treasurer*, 31 Mich. 6, it was held that a title which read "An act to establish an Insurance Bureau" was sufficiently broad to cover any pertinent regulations respecting the bureau's course of action towards those engaged in insurance, and any appropriate provisions for prescribing the duty due from the insurance companies to the State in the matter of taxation, without violating the constitutional provisions.

3. The question of more difficulty is the question of fact as to whether the preparations of complainant are concentrated commercial feeding stuffs as defined by the act cited above.

It is true the testimony shows that upon each of the labels which accompanied Pratt's Food for Horses and Cattle was the statement: "Pratt's Food is a regulator, to be used according to directions, and is not sold as a feeding stuff, nor is it to be fed in place of grain or any other feed." But in addition to claiming medicinal properties for the food it was also stated how it should be used to fatten and improve stock. It was stated that "It fattens both cattle and hogs quickly, makes them grow larger and healthier and make their meat tender, more juicy and better eating." It also stated that for horses it "produces bone, muscle and better staying powers; improves the wind."

When this statute was enacted commercial feeding stuffs were on the market and this fact must have been known to the Legislature.

In employing the broad language "All condimental stock foods, patented and proprietary stock foods, claimed to possess nutritive properties and all other materials intended to cover all preparations for which the claim of nutritive qualities was made." Complainant's preparations come within this language.

Similar representations were made in the labels of other preparations.

We are of the opinion that the Circuit Judge was right in holding that all these preparations were within the statute.

The decree is affirmed with costs.

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Pierre Viaus Maple Company, Complainant v. Arthur C. Bird, Dairy and Food Commissioner, and Joseph Schnitzer, Inspector of the Dairy and Food Department, Defendants. Before Grant, C. J., Blair, Montgomery, Ostrander and Hooker, J.J.

Complainant is the manufacturer of a brand of syrup known as the "Pierre Viaus Pure Canadian Maple Syrup and Cane Syrup." The trademark being the letters P. V. The bill alleges that the Canadian Pure Maple Syrup exceeds the amount of Cane Syrup. It sets forth efforts made with the Pure Food Commission to agree upon a label which shall comply with the law, the failure of these negotiations, the representations made to the trade by the defendants that the sale of this syrup is illegal, and the injurious effect upon the complainant's business, and prays that the defendants be restrained from in any manner interfering with its business. To this bill of complaint the defendants demurred upon the ground that the syrups mentioned in said bill of complaint are not labeled as required by the laws of this State. The demurrer was overruled and the defendants have appealed.

Grant, C. J.

It is urged by the Attorney General that the sale of this mixture is in violation of section 5007 of the Compiled Laws, reading as follows:

"That it shall be unlawful for any person, dealer, firm, manufacturer or corporation to manufacture and sell, or offer for sale, any maple sugar, maple molasses or maple syrup that is in anywise adulterated

with common sugar, beet sugar, glucose or any other foreign substance without distinctly marking, stamping or labeling the articles or the package containing the same with the true and appropriate name of such article and the percentage in which common sugar, beet sugar, glucose or any other foreign substance enters into the composition of the same."

It is urged by the complainant that the case falls within Act 193, Public Acts of 1895, known as the Pure Food Law, and entitled "An act to prohibit and prevent adulteration, fraud and deception in the manufacture and sale of articles of food and drink."

SEC. 1. (C. L. 5010) of the act prohibits the sale or having in possession with intent to sell any article of food which is adulterated within the meaning of the act.

SEC. 2. (C. L. 5011) defines the term "food" to include all articles used for food or drink.

SEC. 3 (C. L. 5012) states what articles shall be deemed to be adulterated. The section closes with the following proviso:

"Provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definitions fourth and seventh of this section."

The court held that this syrup came within the Pure Food Law (Act 193), and not under the act prohibiting the adulteration of maple sugar, etc., and that it came within the proviso above quoted.

We think the court was in error. The act in regard to the manufacture and sale of maple sugar is complete in itself, and covers the entire subject. It was intended to prohibit the manufacture and sale of maple sugar under any name without labeling the product with the true and appropriate name, stating thereon the percentage of any other ingredient used in its manufacture. The title of the act is "An act to prohibit the adulteration of maple sugar, maple molasses and maple syrup." The word "adulteration" in this statute means the mixture of any foreign substance, wholesome or unwholesome, with maple sugar. The evident purpose of the statute is to compel all persons manufacturing or selling maple sugar to inform the public not only of what the product is composed, but the proportions of each article used in the manufacture.

Decree reversed, and bill dismissed with costs of both courts.

Armour & Co., Complainants,

v.

Arthur C. Bird, State Dairy and Food Commissioner,  
et al., Defendants.

Before: Blair, C. J., Grant, Montgomery, Ostrander, Hooker, J. J.:

Complainant is a corporation organized under the laws of the State of New Jersey, with headquarters in Chicago, Illinois. It is and has been, for many years, engaged in the manufacture and sale of fresh and cured meats and sausage and other meat products. Its sale of these products, including sausage, extended over the entire State of Michigan.

In the year of 1906, the defendant, the Dairy and Food Commissioner, caused chemical examination to be made of the various brands of sausage sold within the State, including that of the complainant, and found that many of them contained cereals and a percentage of water greater than that found in meat alone. On January 16, 1907, he issued the following circular:

"Gentlemen:—A growing tendency on the part of manufacturers of sausage, bolognas and similar meat products, to use various preparations and substances foreign to the legitimate ingredients necessary to the manufacture of these articles of food, the said preparations being commonly known and designated as fillers, binder, etc., has prompted this Department to make a thorough investigation into such sausages. This has been done for the purpose of ascertaining the true reasons for the widespread practice of using the preparations mentioned.

The results obtained from the investigation as carried on in the Department laboratory lead to but one conclusion, viz., that the addition of so-called binders and fillers to meat products is primarily for the purpose of substituting in part an inferior or cheaper substance for legitimate ingredient, thereby lessening the cost of manufacture.

The first and second subdivisions of section 5012 of the Compiled Laws provide that an article shall be deemed to be adulterated within the meaning of the act,—first, if any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it. Basing its ruling on the subdivisions of section 5012 above cited, this Department holds that the addition of the so-called binders and fillers mentioned to meat products is contrary to law. From and after this day, manufacturers and dealers will be held to a strict account for each and every violation. Provided, however, That dealers within the State are given until January 25, 1907, to dispose of stocks on hand.

"Yours very truly,

"A. C. BIRD,

"State Dairy and Food Commissioner."

This circular was sent to all the meat dealers of the State, and a copy sent to the complainant at Chicago. Those employed under the direction of the defendant Food Commissioner also verbally informed the retail

dealers of the State that they would be prosecuted if they did not comply with the above order. The trade of the complainant in Michigan was very large, and the effect of this circular, and the threats of prosecution verbally made, naturally tended to decrease very largely the complainant's sales in this State, and to cause it considerable loss. Therefore, on November 18, 1907, complainant filed its bill of complaint in this cause, setting forth the above circular and threats on the part of the defendants, the injury to its business, that defendants were acting illegally in their conduct, and praying that they be restrained from "declaring in any manner, orally or in writing, to the customers and patrons of your orator, or to the people of the State of Michigan, that the sausages and other meat products of your orator containing cereal, manufactured and sold, and offered for sale in the State of Michigan, are sold and offered for sale in violation of any statute of the State of Michigan." The bill alleges that the sausage manufactured and sold by the complainant bear labels showing their respective ingredients, in accordance with the standard fixed by the laws of the United States and the regulations of the Department of Agriculture thereunder, a sample of said labels being set forth in the bill and reading as follows:

**ARMOUR'S "DEVONSHIRE" Farm Style SAUSAGE MEAT.** Made from the Meat of Hams and Selected Young Pork. Prepared with choicest spices and cereals. Armour & Company.

U. S. Inspected and passed under the Act of Congress of June 30, 1906. Establishment 2 A.

An answer was duly filed denying that the sausage manufactured and sold by the complainant in this State containing cereals and water is a wholesome product, or that it is manufactured in accordance with the Act of Congress of June 30, 1906, and the regulations of the United States Department of Agriculture; or that it is a compound or mixture within the meaning of the proviso of Sec. 3, Act 193, Pub. Acts of 1895, as amended. The answer admits that the sausage of the complainant is shipped into this State in packages, or boxes, labeled with the trade name of the sausage, and the words "with cereal," but alleges that the consumer, or purchaser of the retail dealer, is in no way advised, when he purchases, that the sausage contains cereal, or cereal and added water, unless such purchaser purchased the entire package shipped to the dealer, and that even then he was not informed that the product contains added water.

Both the bill and answer contain other allegations which we deem it unnecessary to state. Issue was joined, proofs taken in open court and by deposition, and after a full hearing decree was entered dismissing the bill. The statute, C. L. Sec. 5012, under which defendants claim to justify their action, is as follows:

"An article shall be deemed to be adulterated within the meaning of this act: First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its quality, strength or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary constituent or ingredient has been wholly or in part ab-

stracted from it; fourth, if it is an imitation of, or is sold under the name of another article; fifth, if it consists wholly or in part of a diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not, or in the case of milk, if it is the product of a diseased animal; sixth if it is colored, coated, polished, or powdered whereby damage or inferiority is concealed or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous or injurious to the health: Provided, That nothing in this act shall prevent the coloring of pure butter: And provided further, That the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles or ingredients of articles of food, if each and every package sold or offered for sale bear the name and address of the manufacturer and be distinctly labeled under its own distinctive name, and in a manner so as to plainly and correctly show that it is a mixture or compound, and is not in violation with definitions fourth and seventh of this section."

Grant, J.: The following facts are admitted or established beyond controversy:

(a) The sausage manufactured by the complainant is a wholesome article of food. It contains nothing deleterious to health.

(b) It is a mixture or compound within the meaning of the proviso in the statute above quoted, being composed of meat, cereal, salt and spices.

(c) It is made in accordance with the Act of Congress and directions prescribed thereunder by the Commissioner of Agriculture, and under the inspection of the United States inspectors.

(d) Sausage is made of different kinds of meat, viz., pork, beef and veal. Whether manufactured for interstate commerce or domestic use within the State, it is sometimes made with cereal, and sometimes without it. Cereal is not a necessary ingredient to its manufacture, although it has been used by most manufacturers for many years.

(e) Water is an essential ingredient in the manufacture of sausage, whether made with or without cereal. This is shown by the evidence of the defendants. One of their witnesses, with an experience of thirty-five years, testified:

"In the manufacture of pork sausage we use pork, and if the pork is a little too fat we put in some veal or beef. It is necessary to have a little water added, a quart and a half to 100 pounds. It is pretty hard to make them without. We use a little more water than would be found in the meat when freshly killed."

Another, who had been engaged in the manufacture of sausage since 1864, testified:

"I put a little water in pork sausage. I use from five to ten pounds of water to 100 pounds of meat. Enough to make it pliable that is all. I use from eight to ten pounds of water in making beef sausage. I presume you could make sausage without water, but you could not stuff it very well."

Another who learned to make sausage in Germany, testified:

"I have always used water and still use water in the manufacture

of sausage. Water is necessary. They use water in making sausage in Germany. So far as I know everyone used it."

The United States regulations require that the water used shall be pure.

(f) It is not in violation of definitions four and seven of the act. It does not violate definition seven because it contains no substance or ingredient poisonous or injurious to health. It does not violate definition four because meat is the basis and principal ingredient of the article. As manufactured by complainant, it contains from two to ten per cent of cereal. It is and has been, for more than forty years, recognized in the trade as sausage. When sold as sausage with cereal added it deceives no one, is not an imitation and manufacturers are entitled to manufacture and label it as sausage with cereal. It is not contended that manufacturers have not the right to use the name "sausage" when sold with a proper label.

The Federal statute is practically identical with that of Michigan, and contains a proviso reading:

"That an article of food which does not contain any added poisonous or deleterious ingredients shall not be deemed to be adulterated or misbranded in the following cases:

First, In the case of mixtures or compounds which may be now or from time to time hereafter known as articles of food under their own distinctive names, and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the place where said article has been manufactured or produced.

Acting under this law, the Department of Agriculture, on September 12, 1906, adopted the following regulation:

"Sausages and Chopped Meats. The word sausage without a prefix indicating the species of animal is considered to be a mixture of minced or chopped meats with or without spices. If any species of animal is indicated as pork sausage, the sausage must be wholly made from the meat of that species. If any flour or other cereal is used the label must so state. If any other meat product is added, the label must so state."

To this regulation the department added "manufacturers are warned that the above rulings do not exempt them from the enforcement of state laws."

The learned circuit judge, in his opinion, found that sausage manufactured as is that of the complainant "is probably as healthy as pure sausage such as was known to the fathers."

Briefly stated then, the case is this: complainant, a resident of another state, is manufacturing and shipping into this State a wholesome article of interstate commerce in strict accord with the law and regulations of the federal government. State law cannot interfere with this interstate traffic. The law here involved does not attempt to interfere with it, or to deny to the complainant the right to sell and ship its goods to retail dealers in this State. There are, therefore, but two questions material to the determination of this controversy, viz.:

(1) May the state through its legislature enact laws regulating the domestic sales of this product to consumers within the state?

(2) Does the statute above cited include the product made by the complainant?

It is not contended that the state is not clothed with the power to regulate the domestic sale of such products after their shipment into the state. Intoxicating liquor, which is a subject of interstate commerce, may be shipped into this state in original packages, but it cannot be sold within the state in violation of the state laws regulating or prohibiting its sale. No contention is made that the state statute in question is not constitutional and reasonable. Pure food laws have been enacted probably in all the states, and have been universally held valid when reasonable. The sole question therefore left to determine is whether the statute includes sales to consumers in small quantities taken from the original packages. If the domestic dealer were to sell an original package labeled as above to the consumer, such sale, would be valid, because the label complies with the law and notifies the purchaser that the article is not a sausage of meat alone, but a sausage composed of meat and cereal. It is not contended that manufacturers of sausage have not the right to label their product "sausage" with the statement added that it is mixed with other products, specifying them.

If we understand the position of counsel for complainant correctly, it is that in construing this statute courts should be governed, not by the popular and common understanding of the meaning of the word "sausage," but by its trade and commercial meaning; that is, its meaning as understood between the manufacturers and their customers to whom they sell for retail to consumers. They say:

"It is unmistakable that the legislature understood it was enacting a law with reference to an article of food which was then a subject of trade and commerce among the people. There were at times scores of different kinds of "sausage" upon the market, that is, sausage made in different ways, a difference in the ingredients used in the various kinds, and a variance in the proportions used; and different manufacturers and dealers made and dealt in different kinds, and each knew that all this variety of meat food products were included in the term "sausage," and the legislature is charged with knowledge of that fact, and must be presumed to have used the term "food" accordingly."

In support of this they cite several cases from the federal courts construing the tariff or duty acts, in which it has been held that the laws of Congress imposing duties upon imported goods must be construed with reference to the trade or commercial meaning of the articles mentioned in the law. Among the cases cited are the

Two Hundred Chests of Tea, 9 Wheaton 430;  
Cadwalader v. Zeh, 151 U. S. 171;  
McCoy v. Hedden, 38 Fed. Rep. 89.

In the Two Hundred Chests of Tea it was held that "bohea tea" was used in the duty act in its known commercial sense, viz., "that article



which in the known usage of the trade acquired that distinctive appellation."

In *Cadwalader v. Zeh*, the question was whether, under the duty act, earthenware consisting of small cups, saucers, mugs, etc., having on them pictures of animals and other objects, and letters of the alphabet, should have been assessed as toys with 35 per cent ad valorem, or as china, etc., with 60 per cent ad valorem. The case was held to depend upon the commercial meaning of the word "toys."

In *McCoy v. Hedden*, the question was whether currycombs were dutiable under a provision imposing a duty upon combs of all kinds. If they were not known to the trade among merchants as combs they were held not dutiable as such. These and other similar cases arose between the United States and importers of foreign goods, and do not apply to cases arising under the pure food laws of state governments. Courts will take cognizance of the well-known fact that farmers, laboring men and consumers are not generally familiar with the customs of trade and commerce in importing goods, or of understandings of the trade between manufacturers and merchants who buy those products for retail trade. Such construction would emasculate the pure food laws and deprive the people of the protection which the legislature wisely intended to give them.

Sausage is defined by all the lexicographers as an article of food composed of meat, salt and spices. (See *Worcester's* and *Century* dictionaries). The people generally so understand it. The writer of this opinion would be compelled to admit that until very recently he had no knowledge that cereal was used in the manufacture of sausage. It is too manifest for further argument that the legislature in enacting the law was not providing for the regulation of sales between manufacturers and merchants, but between retail dealers and consumers. They enacted the law solely for the protection of consumers, the people who buy and eat the products. The consumer who prefers sausage made of meat alone is entitled to be informed that he is buying such an article. The consumer who prefers sausage mixed with cereal is entitled to know that he is purchasing that article. The contention of the complainant, if sustained, would deprive the consumer of this right which the statute plainly gives him. We cannot follow *State v. Nesland*, 120 N. W. Rep. 107, (Iowa), wherein it is held that sales in small quantities from original packages are not within the statute. In that case a pound of lard was sold from a fifty pound package properly labeled with its constituent parts, but it was held that the retail dealer was not required to label the small packages sold. That opinion is based upon the well-known rule that penal statutes must be strictly construed. The statute of Michigan expressly provides that these mixtures must be labeled showing the different kinds of ingredients contained in them. Sec. 2 is as follows:

"The term food, as used, herein, shall include all articles used for food or drink, or intended to be eaten or drank by man, whether simple, mixed or compound."

This is a general statute covering all food products not otherwise specifically provided for. We consider its provisions perfectly plain,

and not subject to any misunderstanding or uncertainty. To hold otherwise would substantially exclude all the benefits and protection to the people of the state which the statute was clearly designed to grant. We, therefore, hold that retail packages of small amounts taken from the original package of the manufacturer, and sold to the consumer, must be properly labeled as the law directs.

The court below dismissed the complainant's bill, thereby granting it no relief whatever. In view of the position taken by the Food Commissioner in his circulars and answer herein filed; and in view of the importance to the complainant, and to the people of the state to know under what conditions a wholesome article of interstate commerce may be sold in this state, we think the learned circuit judge should have entered a decree defining the rights and determining under what conditions complainant, as well as other manufacturers, may have their valuable and wholesome products sold by the retail dealers, and to restrain the defendants from interfering with such legitimate sales.

The Food Commissioner, as above stated, denied in his answer that the sausage made by the complainant was a wholesome product, or that it was a mixture or compound within the meaning of the act, and insisted that it was an adulteration. His attitude is further shown by his reply to complainant's letter of January 17, 1907, asking "if there would be any objection to using cereal if such fact is stated on label same as provided by national law." He denied this permission, which was, not only a compliance with the federal law, but a compliance with the state law.

The use of cereal in the manufacture of sausage has been very general. The State Food and Dairy Commissioner of Iowa, who at the time of the hearing below had held office for five years, testified to its general use in that state, stating that "the ingredients used by the Iowa manufacturers in making sausage are chopped meats, salt, spices, flour and sufficient water." In July, 1907, he issued a bulletin stating:

"The Commissioner has no authority to establish standards for the information of the public, it is here stated that this Department will not interfere with the sale of sausage because of the presence of wholesome flour, provided that an analysis does not show more than five per cent of such flour."

It appears to be established by the evidence that sausage made with cereal is sold cheaper than that made of meats alone. If so, the people desiring to buy and eat the cheaper products should have the privilege of doing so, and such product should not by any decision of the court be prohibited from sale.

The opinion of the circuit judge does not prohibit its sale when properly labeled. He held that the trouble was not with the use of cereal, but in permitting the product to be sold at the retail counter without informing the customer that cereal is a part of it. Counsel for respondents conceded in the oral argument in this court that it was a wholesome food and was entitled to sale in this state, when sold under a proper label informing customers of what it is composed.

It is conceded that the use of cereal requires more water than does

sausage made with meat alone. Anyone of intelligence would, upon reflection, know this to be the fact. The only doubt I entertain in the case is whether the label should, in addition to the words "with cereal," contain also "and water." In view of the fact that water is generally used in the manufacture of all sausage, and that no law or regulation of the food department has fixed the amount of water that may be used, it would seem like judicial legislation for the court to require the label to show that water is used in the manufacture.

The statute does not require the label to state the proportion of the ingredients composing the mixture, but only the names of the ingredients. The statute makes special provision for butter, cheese, lard, canned fruits and vegetables, coffee and molasses. There are other statutes governing the manufacture and sale of specific products requiring the proportions of the ingredients to be placed upon the labels, such as Act 123, Public Acts 1903; *People v. Harris*, 135 Mich. 136.

It is within the power of the legislature to pass an act specifically provided for the manufacture and sale of sausage, and that the labels should state the proportions of the ingredients used. We hold a label "sausage with cereal" upon packages sold to consumers is a compliance with the statute in labeling the mixture, and a decree should be entered so stating. A decree will be entered in this court in accordance with the above opinion. No costs will be allowed.

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#### OFFENSES AGAINST THE PUBLIC HEALTH.

(C. L. 11404) SECTION 1. If any person shall knowingly sell any kind of diseased, corrupted or unwholesome provisions, whether for meat or drink, without making the same fully known to the buyer, he shall be punished by imprisonment in the county jail not more than six months, or by fine not exceeding two hundred dollars.

(C. L. 11405) SEC. 2. If any person shall fraudulently adulterate, for the purpose of sale, any substance intended for food, or any wine, spirits, malt liquor, or other liquor intended for drinking, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding three hundred dollars, and the article so adulterated shall be forfeited and destroyed.

(C. L. 11406) SEC. 3. If any person shall fraudulently adulterate, for the purpose of sale, any drug or medicine, in such manner as to render the same injurious to health, he shall be punished by imprisonment in the county jail not more than one year, or by fine not exceeding four hundred dollars, and such adulterated drugs and medicines shall be forfeited and destroyed.

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